Clinical Lecture
ON
LOOSE CARTILAGES IN THE KNEE-JOINT.

Delivered at the London Hospital,

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GENTLEMEN,—Having recently had occasion to operate on two cases of "loose cartilage" in the knee-joint, I embrace the opportunity offered to me to bring them under your notice.

CASE 1. — Alfred D——, aged sixty-four, was admitted into the London Hospital in February, 1883. He had noticed something in his right knee-joint for forty-eight years. The affection commenced with an injury at sea. A ballast-tub fell down the hatchway and struck his right knee. He was laid up during the whole of the passage home from Quebec, and fourteen days after his arrival at Liverpool. Since that time he has noticed a pea-like body moving in the joint. Not, however, till four years ago did the joint become painful or was locomotion impeded. Two years ago he went to St. Bartholomew's Hospital. The joint was swollen, and was painted with iodine, and from the man's account it would appear to have been punctured with a grooved needle for the purpose of examining the fluid contained in it. For the last six months he had suffered considerably. He was frequently seized with severe pain whilst walking, and was compelled to stop. This happened whenever the loose body slipped downwards, and he had to push it up before he could proceed. He never noticed more than one loose body, but it sometimes appeared on one side of the patella and sometimes on the other. On Feb. 27th the loose body was removed under the carbolic spray. It was fixed against the inner condyle, and a straight vertical incision, about two inches in length, was made on the inner side of the patella through the skin and fascia over the loose cartilage. An articular artery was divided, and was secured with catgut. All hæmorrhage having ceased, the synovial membrane was divided; a gush of synovial fluid followed. The cartilage was then seized and extracted with forceps. The index-finger of the right hand was introduced into the joint. No other loose bodies could be detected, but apparently there were indications of chronic rheumatic arthritis affecting the margins of the articular surfaces. I do not, however, lay much stress upon this, as it is very easy to be mistaken in a cursory digital examination of the kind. The edges of the wound were brought together with sutures, a sufficient interval being left between the central stitches to admit of the ready escape of fluid, if, as I expected after the exploration, there should be an active secretion by the synovial membrane. The edges were placed in apposition in the centre, but not closely stitched. The usual gauze dressings were applied, and the limb was fixed upon a back splint. During the first twenty-four hours there was free discharge of serous fluid, necessitating a fresh dressing on the following day. Had not a ready exit been secured, this fluid would have remained in the joint, distending it, and causing discomfort to the patient. By March 9th, when the third dressing was applied, the wound had nearly closed. The temperature rose to 100° on the evening of the operation, and to 100·4° the next day; subsequently it continued normal. In the middle of March all dressings were discarded. Some stiffness of the joint still remained, and the patient was kept in the hospital until standing and walking ceased to occasion swelling of the limb. Dr. Humphry, of Cambridge, has removed a loose cartilage from the knee-joint presenting parallel conditions. The operation was performed under the carbolic acid spray. No drainage-tubes were used. The wound rapidly healed, but some stiffness remained. The patient, a soldier aged twenty-six, left the hospital five weeks after the operation. The loose body which I removed is a circular flattened disc, very uneven on the surface, and measuring about an inch in the longer diameter, rather less in the shorter, and three-eighths of an inch in thickness. When it was taken out of the joint, it had a whitish colour with a pale yellowish tinge and glistening aspect. It was destitute of a fibrous capsule. The section, which was made with a saw, shows that it is composed chiefly of dense bony tissue covered over by a thin layer of cartilage or fibro-cartilage.

CASE 2.—Robert C——, aged nineteen, a clerk on the Stock Exchange, was admitted into the London Hospital under my colleague, Mr. Reeves, who had charge of my wards, on Sept. 12th, 1883, suffering from a loose cartilage in the knee-joint. The history furnished to me by my house-surgeon, Mr. Peskett, states that in July, 1882, he was riding a bicycle, and was thrown off, falling on his left side, and striking his left knee against the ground. At the time of the accident he did not think much of the injury to the knee, but soon afterwards the joint became greatly swollen, and remained in this condition for a year, during which time it was very weak. Last July, whilst he was playing lawn tennis, his knee became locked in the semi-flexed position, and this was followed by an increase of effusion into the joint. Soon afterwards he discovered the loose cartilage. It was small, but he was able to find it by pressing the knee on one side, and thereby causing it to make its appearance on the other. After this he became an out-patient. His knee was blistered, and most of the effusion disappeared. On admission into the hospital his left knee-joint was slightly swollen, and he appeared to be very weak on the affected side, as he could not walk well without the aid of a stick. On the 15th the patient was ordered up, that he might find the loose body, which he had not felt since his admission. On October 2nd it was recorded that he had found the body once since the 15th, but lost it again before he could fix it. Finding it once more, he secured it in position with pieces of cork. On Oct. 3rd, having resumed duty, I had the patient placed on the operating table, and, an anæsthetic having been administered by Mr. Peskett, removed the cartilage by making an incision over it on the inner side of the patella, steadying it by means of an acupuncture needle fixed in a handle, and freeing it from the synovial membrane. The operation was performed with strict antiseptic precautions under the carbolic spray, and all bleeding arrested before the synovial membrane was divided. The wound was closely united throughout by catgut sutures, and dressed with protective and gauze. Not having explored the joint, as the history pointed only to the presence of a single body, I did not expect any serous effusion after the operation, and therefore united the edges of the wound more thoroughly with sutures than in the preceding case. The patient had no rise of temperature and no bad symptom of any kind afterwards. The wound was redressed at the end of a week, and the stitches removed. There was no discharge, and the wound had nearly healed. The patient left the hospital to resume his occupation. I may mention that he wished to be operated on without an anæsthetic, but I persuaded him to take ether, and I am glad that he consented, because Mr. Rice Morgan, who had a loose cartilage successfully removed by Dr. T. D. Griffiths, of Swansea, without chloroform or ether, writing in THE LANCET on Sept. 29th, speaks of the procedure as very painful. The loose body consisted of a nearly smooth piece of cartilage of a pearly-white colour, not half the size of the other specimen, and having some resemblance to a finger nail, but considerably thicker, and uneven at the base. It bears the remains of a pedicle.

There appear to be at least four or five distinct modes in which loose bodies may arise in the interior of a joint. Rarely soft yellowish bodies are said to be met with, like masses of fibrin, and these are considered to have their origin from blood-clot deprived of its colouring matter by absorption. It has also been conjectured that fibrinous material thrown out in inflammation may become moulded into pellets. Another mode of origin is from an accident causing a detachment of some part of the articular surface of one of the bones entering into the formation of the joint, or of a portion of fibro-cartilage. As examples I will refer to one or two published cases. In the Transactions of the Pathological Society[1] Dr. John Walters contributes a case of a loose cartilage successfully removed by subcutaneous operation from the knee-joint of a young man aged twenty-three, who had on various occasions sprained his knee and dislocated his patella. The loose body was discovered after the last injury as soon as the swelling had subsided. It measured an inch by three-quarters of an inch; the convex surface was smooth, and like the free surface of normal articular cartilage; the concave was rough and bony. The

[1] Vol. xxiv., p. 188.

smooth surface was invested with a thin membranous layer which could be peeled off in places, and the cells of the cartilage were seen under the microscope to have a vertical arrangement. On the opposite surface the hard tissue presented all the characters of true bone. The Committee on Morbid Growths, to whom the specimen was referred for examination, confirmed Dr. Walters's opinion that the specimen was a piece of cartilage which had been separated by violence from the condyle of the femur. In the work of Drs. Wilks and Moxon on Pathological Anatomy reference is made to the case of a man who in the dark struck his knee against the corner of a bedstead. A loose body was observed in the joint, and was removed by Mr. Poland. The man died a few days after the operation, and it was then seen that the body consisted of a portion of the patella, which had been detached by the injury. In the Transactions of the Pathological Society[2] Mr. Brodhurst records a case in which the anterior portion of the left internal semilunar cartilage was separated and displaced. A gentleman, aged twenty-five, whilst playing at football, kicked at the ball, missed it, and fell. Immediately he rose from the ground, and again endeavoured to kick the ball, but could not. Swelling of the knee soon supervened, and the displaced cartilage could not be discovered. Five weeks after the accident the swelling had subsided, and the patient was told to consider himself well, but as he could not walk without considerable pain and lameness, he determined to come to London to ascertain the cause, if possible. On examination a loose cartilage was discovered lying on the inner side of the left knee-joint, and it appeared to be movable under the finger. It was determined, therefore, to remove it. Accordingly, the ether spray having been used, an incision was made about three-fourths of an inch below the position of the cartilage, and the knife was carried up to and freely round the cartilage itself. The cartilage was then seized with forceps, but it could not be moved. When it was obvious that the removal could not be effected subcutaneously, the cartilage was cut down upon directly, and when seized with forceps, it was seen to be detained *in situ* by a small portion of ligament. With a touch of the knife the ligament was divided, and the cartilage, being detached, was taken away. There was not any escape of synovia. Neither pain nor swelling followed the operation, and in eight days the wound had entirely healed. In a fortnight after the removal of the cartilage the patient walked easily and well. The specimen is in the St. George's Hospital Museum. The last two cases illustrate the formation of a movable body in the knee-joint as the immediate effect of accident, but cases are on record in which a movable body has appeared some time after an injury, and in which the explanation offered is that a portion of articular cartilage either alone, or with part of the adjoining layer of bone, has separated gradually from the contused or concussed articular surface. Mr. T. P. Teale of Leeds put forward this view in 1855 at the Medico-Chirurgical Society. His case, which will be found in the thirty-ninth volume of the Medico-Chirurgical Transactions, was briefly this. A brewer, thirty-seven years of age, accidentally let a cask slip against his right knee. Severe pain in the joint followed, and he was unable to work for three weeks, after which time he followed his employment as usual for nearly twelve months, when he became suddenly lame and was unable to bear his weight upon the right leg. He then for the first time felt a flat substance moving about in the knee-joint. Unfortunately the operation practised for the removal of the cartilage was followed by inflammation of the joint, and phlegmonous erysipelas of the thigh and buttock, which proved fatal on the sixth day. At the post-mortem examination the under-surface of the inner condyle of the femur showed a circular depression about the eighth of an inch in depth, having a rough surface of bone at its base, and the substance removed, consisting of a smooth layer of cartilage on one aspect and rough bone on the other, accurately fitted into the cavity in the condyle. The process of exfoliation by which an injured portion of articular surface is cast off has been called "quiet necrosis" by Sir James Paget, who has recorded a similar though successful case in St. Bartholmew's Hospital Reports for 1870. A fourth method of origin is thus described by Sir Benjamin Brodie:—"In cases in which a joint has been long the seat of disease, especially of that which I have described under the name of rheumatic gout, it occasionally appears that a bony ridge is formed like a small exostosis round the margin of the articular surfaces. In two cases this preternatural growth of bone had taken place, and in consequence of the motion of the parts on each other, portions of it had been broken off and lay loose in the cavity of the joint."[3] In the Hunterian Museum there is one of Hunter's preparations showing exostoses on the edge of the patella, one being partially divided. From Hunter's remarks on the case it is evident that he then considered this to be the common mode of origin.

A fifth and an ordinary source of loose bodies or cartilages is from the vascular fringes of synovial membrane which project at various points into the cavities of joints. This conversion is rendered intelligible by the histology of the synovial membranes. They are composed of connective tissue covered over by cells which may either be epithelial or irregularly branched. Developed from cartilaginous tissue the marginal zone of synovial membrane passes for a short distance over the articular cartilages, and a gradual transformation of the synovial membrane into cartilage occurs. The fibrous tissue becomes fibro-cartilage and the surface cells are divested of their processes, and become true cartilage cells. The larger folds of synovial membrane contain bloodvessels and fat, but small, secondary finger-like fringes, or synovial villi, destitute of bloodvessels are given off from the larger ones, and enclose fibrils of connective tissue, or fibro-cartilage. Hence it is easy to understand how under the irritation occasioned by an injury, or in consequence of a peculiar constitutional proclivity to arthritic changes, a synovial fringe already containing fibro-cartilage cells may become converted into fibro-cartilage, and from fibro-cartilage into bone. The amount of transformation depends apparently on the length of time which elapses before the fringe is detached. As it increases in size, it becomes pediculated, and at last the pedicle gives way, and the original fringe is a loose cartilage. That this is a usual mode of development has been shown by post-mortem examination of joints affected with rheumatic arthritis. A very good illustration is afforded by a case brought before the Pathological Society by Mr. Wagstaffe. A man, aged sixty-two, fractured the shaft of his femur whilst reaching round for a book as he lay in bed. He died of asthenia. Six years previously he had fractured the neck of his femur from a fall, and for twenty years he had been the subject of chronic rheumatic arthritis. At the post-mortem no traces of the head and neck of the femur were found; apparently they had been absorbed. There was an old fracture of the trochanter with separation of the fragments, and the joint was the seat of extensive and so-called rheumatic disease. A huge thick sac united the great trochanter with the pelvis, and contained about fifty loose cartilages. These bodies varied in size, consistence, and structure. The largest attained the size of a chestnut; some were simply cartilaginous, others firmer and with bony interior. That they originated from the hypertrophied fringes seen on the walls of the sac is indicated by the fact that these pedunculated masses also differed in size, consistence, and texture, some being soft and like synovial membrane, and others fibro-cartilaginous. Actual bony conversion is exhibited in a knee-joint presented by Lawrence to the Hunterian Museum. On the walls of the joint cavity are fifteen to twenty pendulous masses of bone and cartilage varying from half an inch to an inch in diameter. Sir Benjamin Brodie found in one case which he dissected, besides some loose cartilages having the usual appearance, a loose body of an irregular shape with one surface smooth and cartilaginous, and the other surface with a thin layer of bone adhering to it, being evidently a portion of the articular surface actually broken off from the head of the tibia, possibly as a result of the previous presence of the loose cartilages. He also relates two cases in which firm fleshy tumours connected with the synovial membrane produced all the symptoms of loose cartilages, and were removed under the impression that they were of that nature. Obviously from the description above given of the characters presented by the synovial membrane and its fringes in health, it is quite possible to have loose bodies of various kinds formed from it, bodies consisting of fat or fibrous tissue, or fibro-cartilage, or cartilage or bone.

The symptoms occasioned by loose cartilages in the knee-joint have been sufficiently exemplified in the history of the cases related, and the diagnosis is at once established by the

[2] Vol. xviii., p. 214.

[3] Diseases of the Joints, p. 255.

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discovery of the offending body or bodies. There are, however, other affections of the knee-joint which may be mistaken for loose cartilages. These I must reserve for separate consideration, adding here a few words concerning the operative treatment of loose cartilages. In no other single class of cases have the advantages conferred by Lister's antiseptic system been more strikingly exemplified than in affections which render it necessary to cut into the knee-joint. Formerly the removal of a loose cartilage was often an anxious, and even a hazardous, operation, whether it was performed by direct or by subcutaneous incision. It matters little whose statistics you take—Larrey's, Volkmann's, Barthenson's, or Benndorff's—you will find a considerable proportion of deaths, varying from about one in eight cases to one in five, and in addition to the deaths a great many failures; and you may be sure of this, that many fatal cases have remained unrecorded. Even surgeons who in the pre-Listerian epoch were most successful speak in a timid, hesitating tone about the operation, and contemplate the necessity for abandoning it without removing the cartilage. Thus Brodie: "My own experience is in favour of the operation, provided that it be done in a cautious and prudent manner. The patient should be kept in a state of the most perfect quietude for two or three days preceding, and for several days after, the operation. The cartilage having been well fixed, the different parts over it should be slowly and separately divided until it is exposed. The wound of the synovial membrane may be dilated by a probe-pointed bistoury until it is of sufficient size to allow of the cartilage being extracted with a tenaculum, and the cut edges of the skin should be instantly replaced in contact with each other, and secured by means of adhesive plaster. There should be no searching for the cartilage in the joint. If it should slip out of the way, the wound should be immediately closed, and the limb should be laid upon a splint until the cut edges are firmly united, the completion of the operation being postponed till a future opportunity."[4] Antisepticism has changed all this. Not that there is not the same need of prudence, care, and caution; not that operations are to be lightly undertaken, or that they may not occasionally lead to a fatal issue, even when the most rigid precautions appear to have been adopted, and all the steps of Lister's process appear to have been most faithfully executed. Mr. Barker assures us that the procedure for the removal of loose cartilages "must still be regarded as dangerous, and from time to time with all antiseptic precautions joints are destroyed, as I have seen in one case operated on by a skilful surgeon, and by the most approved methods." Danger undoubtedly there is, minimise it as we may, but there are some strong facts on record which point to the conclusion that in operating upon joints, at all events Lister's method has given us as near an approach to safety and certainty as the imperfection of human agency and human prevision will permit. Hear Professor Volkmann: "The opening of joints seems a most innocent performance. Hips and knees are cut open in order in a case of luxation to search for the obstacle which opposes itself to reduction, in order to suture the ruptured tissues, and in obscure symptoms to clear up the diagnosis *in vivo* by means of autopsy. More than 200 times I alone, without in one instance bad results following, have incised, drained, and washed out diseased knee-joints without exciting suppuration."[5] These are facts, explain them how you please on the theory of mere cleanliness and drainage, or any other theory possible or impossible. If facts like these could be placed before the judicial mind of Brodie, what would the verdict be? Would he consider unreasonable the conviction of Volckmann that the antiseptic method has elevated surgery to the rank of the latest experimental science, and that "the principles of the antiseptic treatment of wounds"—whatever they may ultimately be determined in their essence to be—"will never again be abandoned as long as the whole of our knowledge is not lost, no matter how our art or the points of attack may change."

[4] Op. cit., ch. viii., p. 254. [5] THE LANCET, August 13th, 1881.

PRESENTATION. — Dr. Gayton, who for thirteen years has been the medical superintendent of the Homerton or Eastern District Hospital for Small-pox, was presented by the staff of that institution, on his appointment to the North-Western District Hospital, with a costly drawing-room clock and appendages, suitably inscribed.

ON THE NATURE OF SNAKE-POISON;

ITS EFFECTS ON LIVING CREATURES, AND THE PRESENT ASPECT OF THE TREATMENT OF THE POISONED.

BY SIR JOSEPH FAYRER, K.C.S.I., F.R.S.

(Continued from page 195.)

Mode of action of snake-poison.—In 1838-69 I observed that whilst the general character of the effects of snake-poison are alike, yet viperine differs from colubrine poison. The poison of naja kills without destroying coagulability of the blood, whilst that of daboia (viper) produces complete and permanent fluidity,[1] and in connexion with this, the blood of an animal killed by snake-poison is itself poisonous, and if injected into an animal rapidly produces its poisonous effects. I have transmitted the venom through a series of three animals with fatal result. In 1868 I described the difference of the action of cobra and daboia venom in the case of two horses bitten by these snakes.[2] I also pointed out the peculiar action of daboia venom in causing early convulsions. In some cases convulsions are more marked, and in others death is preceded by a more decided state of lethargy. In the bite of the echis the local symptoms are peculiarly severe.[3] Dr. Wall gives a more complete exposition of the varying effects, and shows them to be greater than I supposed. Snake-poison kills by extinguishing in some way (some molecular change) the source of nerve energy. It is also a blood poison and an irritant; if applied to mucous and serous surfaces it causes inflammation, absorption then takes place, and the symptoms of general poisoning are induced. It causes great local disturbance as well as blood changes, for if the bitten creature survive long enough the areolar tissue may inflame, suppurate, and slough. If it enters by a large vein life may be destroyed in a few seconds. It was supposed the more active poisons acted by shock through the nervous system; the rapidity with which a poison can be distributed through the circulation would account for the most rapid death from snake-bite. The chief effect is on the respiratory apparatus, and death occurs by asphyxia, but the whole voluntary muscular system is also affected, and general paralysis results, whilst the long continuation of cardiac pulsation after apparent death proves that it is not due to failure of circulation.

The action of snake-poison is discussed at full length in the Proceedings of the Royal Society by Dr. L. Brunton and myself.[4] These researches led us to conclude that the action of the poison is, first, on the cerebro-spinal centres, especially the medulla, indicating general paralysis, especially of respiration; secondly, in some cases, where the poison has been conveyed through a large vein directly to the heart, by tetanic arrest of cardiac action, probably owing to action on the cardiac ganglia; thirdly, by a combination of these causes; fourthly, by blood poisoning of a secondary character. The phenomena vary according to the nature of the snake and the individual peculiarities of the creature injured, the chief difference being observed in viperine as contrasted with colubrine poison. The latter is a nerve poison of great deadliness, but as a blood poison it is not of much power. Viperine poison, on the other hand, is a more potent blood poison.

Dr. Wall summarises the difference in the action of daboia (viperine) or cobra (colubrine) poison as follows:—

"Cobra poison, when introduced slowly into the circulation, produces gradual general paralysis, but at the same time shows a preference for certain nerve-centres, paralysis of the tongue, lips, and larynx being very marked symptoms, and respiration is very quickly extinguished after the paralysis shows itself. Death is often attended with convulsions, which are clearly due to carbonic acid poisoning. Introduced with a fair amount of rapidity, these symptoms are rapidly developed, the paralysis being preceded by gentle stimulation, which causes slight muscular twitchings. Injected in a large quantity into the circulation the stimulation is so violent as to cause general convulsions, of which, however, the respiratory muscles have the chief share and which are

[1] Thanatophidia, p. 4. [2] Ibid., p. 79. At p. 72, 73, op. cit.
[3] Ibid., p. 631. [4] 1873, 1874, 1875, and 1878.

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immediately followed by paralysis and death. Daboia poison, though not injected directly into the circulation, causes the most violent convulsions, which are in no way necessarily followed by paralysis and death, but may be for the time completely recovered from. They do no depend on carbonic acid poisoning. The paralysis that succeeds is general, and lasts a very considerable time before respiration is extinguished. There is no evidence of the tongue, lips, and larynx being especially paralysed, they probably only suffer in the same degree as other parts. Cobra poison very quickly destroys the respiratory functions (after slight acceleration the respiration becomes slower, and the excursus is lessened). Daboia poison at first quickens the respiration very much more than cobra poison does, and the lessening of the excursus and the slowing of the breathing do not occur so soon. The respiration generally in daboia poisoning has a peculiarly irregular character. This function certainly exists longer under the influence of daboia poison than under that of cobra poison. The effect of cobra poison on the pupil is so slight as to be a matter of doubt; daboia poison nearly always causes wide dilatation in the earlier stages of the poisoning. Salivation is a constant symptom of cobra poisoning; it is exceedingly rare in daboia poisoning. The effect of cobra poison in the blood is not very great, sanious discharges are rare, albuminuria has not been seen, and recovery is striking and complete (when it takes place). In daboia poisoning, on the other hand, sanious discharges are the rule, albuminuria is usual should the victim live any time, and after the nerve symptoms have passed away the subject has to go through a period of blood poisoning, little, if at all, less dangerous than the primary symptoms; we have in addition the greater local mischief caused by daboia poisoning, and the greater power it has of destroying the coagulation of the blood. The physiological properties of daboia poison undergo great change by its being heated to 100° C. in solution, losing the power of producing primary convulsions, whereas cobra poison remains unaltered. Daboia poison kills birds at once in convulsions; whereas with cobra poison, unless the poison has been directly injected into the circulation, death occurs only after paralysis. Lastly, amphibia recover from an amount of daboia poison that would be necessarily fatal in the case of cobra poison."

Without unreservedly accepting Dr. Wall's conclusions, I regard them as an able summary of the action of different kinds of snake-poison, and which confirms the deadly nature of Indian, as compared with European, snake-poison.

Symptoms and effects of the poison.—The local effects of the poison are partial paralysis of the bitten part, pain, infiltration, swelling, inflammation, and ecchymosis round the spot where the poison has been introduced, and sometimes in other and distant parts, and if the animal survive for some hours hæmorrhage, infiltration, necrosis, and decomposition of the tissues. The general symptoms are depression, faintness, cold sweats, nausea, vomiting, exhaustion, lethargy, unconsciousness. Dogs vomit, and are profusely salivated; they present an appearance as of the hair "staring." As the poisoning proceeds paralysis appears in the limbs, the hinder ones first, generally seeming to creep over the whole body, involving the tongue and the muscles of deglutition, with loss of the coördinating power of the muscles of locomotion. Albuminuria (especially in viperine poisoning), hæmorrhagic discharges, relaxation of sphincters, exhaustion, lethargy, and convulsions precede death. In fowls the appearance is that of great drowsiness; the head falls forward, rests on the point of the beak, and gradually the bird, no longer able to support itself, rolls over on its side. There are frequent startings, as if of sudden awakening from the drowsy state, then convulsions and death. In cases where the quantity of poison injected is large, and it is at the same time very active (as in cobra), the bitten animal small and weak, or if it have entered a vein, death is almost instantaneous, as from shock. In such cases the cardiac ganglia are probably paralysed, at all events the heart suddenly ceases to beat.

The effects of snake-poison on man are much of the same character, and may be studied in the details of sixty-five cases recorded in the "Thanatophidia," which also give an idea of the duration of life. Dr. Wall has summarised this as follows: "The average length of time of the sixty-five cases is fifteen to seventeen hours, but the average is raised by the exceptionally long duration of a few cases of viperine poisoning, so that a better estimate of the probable duration of time will be obtained by dividing the period in spaces of one hour each, and determining what percentage of deaths occurs in each:—

	Percentage.
One hour and under	10·76
Between 1 and 2 hours	12·3
,, 2 ,, 3 ,, ...	13·84
,, 3 ,, 4 ,, ...	7·61
,, 4 ,, 5 ,, ...	1·54
,, 5 ,, 6 ,, ...	1·54
,, 6 ,, 7 ,, ...	3·07
,, 7 ,, 8 ,, ...	4·61
,, 8 ,, 9 ,, ...	3·07
,, 9 ,, 10 ,, ...	7·69
,, 10 ,, 12 ,, ...	4·61
,, 12 ,, 24 ,, ...	9·36
Over 24 hours	20·0

The most fatal periods appear to be between two and three hours, and more than 25 per cent. of the total deaths take place between one and three hours after the infliction of the bite." It appears also from the above report, in which in fifty-four cases the exact spot is described, that 94·54 per cent. were wounded in the extremities:—

Place of bite.	Percentage of cases.
Fingers and wrist	31·48
Forearm	1·85
Elbow	5·56
Shoulder	1·85
Feet, toes, ankle	48·15
Leg	3·70
Thigh	1·85
Breast	1·85
Ear	1·85
Perineum	1·85

This is a matter of some interest, as the hope of success lies in preventing access to the circulation, and in the facility of removing the part injured, and with it the inoculated venom. The greater proportion of deaths recorded result from the direct effects of the poison. Chronic cases, in which death or recovery resulted after protracted periods, are less frequently referred to. Snake poisoning in this country is of the viperine character, and though, happily, the activity of our viper is feeble compared with that of the tropical viperidæ, and, except in the case of very weak or young creatures, its immediate effects as a nerve poison are feeble, yet the effect on the blood, and locally on the tissues, may be productive of severe and even dangerous symptoms.

I am indebted to the Director-General of the Army Medical Department for the following case, which will appear in detail in the next Army Medical Department annual report:

"*Case of Lieut.-Colonel N. M——, aged forty-five years.*
"*Service twenty-five years.*

"BY SURGEON-MAJOR HARVIE SCOTT, M.B.

"On the afternoon of Friday, the 21st September, 1883, Colonel M——, in company with an officer of the regiment, rode out for the purpose of shooting in that part of Zululand near the Lower Tugela river. When the ground was reached where he was going to shoot he dismounted and walked through rather long grass. In a few minutes he felt a sharp pain in the upper part of his left leg, and after the lapse of a few seconds suddenly became sensible of extreme shock to his system, and at once felt certain that a snake had bitten him; he called out to his companion, who at once rode up to him and volunteered to cut and suck the affected part, but the colonel would not permit him to do so, and as he was not more than ten minutes' ride from camp he rode back as fast as his strength would permit. On his arrival in camp I at once saw him, and his condition was as follows:—Locally, pain, ecchymosis, swelling and partial paralysis of bitten part. Generally so great was the exhaustion that he has nearly fallen off his horse; forehead and hands were bathed in a cold clammy perspiration; extremities cold and pale; sinking sensation in epigastrium, great nervous depression, with a sense of impending death; respiration hurried. Almost immediately after arrival in camp bilious vomiting set in, loss of coördinating power, numbness of hands, forearms, feet, and lips, with dragging sensation of muscles of the face; intense pain in neck; cough of a troublesome nature; expectoration of tenacious viscid mucus, which was with difficulty

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removed from the mouth. Pulse at first weak and rapid, 120 per minute, running up afterwards to 150 per minute, and becoming very weak and thready; restlessness (jumping up suddenly in bed) and anxiety becoming most distressing; vomiting ceased at 9 P.M., up to which time he appeared on the whole to be progressing favourably, but after that most grave symptoms developed—viz., sight rapidly became so weak that he could hardly distinguish anything in his tent; the eyelids drooped; speech thick and nasal; paralysis of tongue and soft palate; dysphagia; clonic convulsions of upper extremities and muscles of chest; dyspnœa; stertorous breathing with low muttering. Consciousness remained up to 12.45 A.M., when he last spoke to me, and asked my opinion as to his pulse and chances of recovery; he then lapsed into a semi-comatose condition, and died a little before two o'clock on the morning of Sept. 22nd, exactly ten hours subsequent to the fatal bite.—Treatment: Tight compression was made above the seat of injury between the bite and the heart; wound enlarged, and an attempt made to remove all the blood and poison from it. Nitrate of silver and ammonia were applied freely to the surface of the wound. Ammonia and diffusible stimulants were administered by mouth. To relieve the distressing vomiting sinapisms were applied to the region of the stomach, and brandy with soda-water given; the restlessness was combated with hypodermic injections of morphia (half grain for a dose), the morphia gave great relief, which, however, was only transitory. Hot-water bottles were applied to the feet, and stimulants were given with an unsparing hand, but were not always retained. Ammonia was also injected subcutaneously. — Post-mortem examination, nine hours after death: Body well nourished. Cadaveric rigidity well marked. Hypostatic congestion. Great discolouration of scrotum and finger nails. Situation of bite on left leg at upper and inner side of calf, about three inches below internal condyle of femur, and immediately over internal saphena vein; appearance that of a small pin puncture; lower part of leg rather swollen. On removing the skin from the region of the wound there was found great sero-sanguineous extravasation into the surrounding tissues, and the muscles were soft and infiltrated with blood; the internal saphena vein was punctured. The venous system on the left side much congested. The glands in left groin, in long axis of limb, enormously enlarged and congested. Glands in right groin normal. Pericardium normal. Heart, right cavities of, full of fluid blood; left cavities empty; valves healthy; no clots. Lungs normal. Liver congested and slightly enlarged. Gall-bladder fully distended. Spleen somewhat enlarged, otherwise normal. Stomach slightly congested; rugæ well marked; contents, a small quantity of glairy mucus. Kidneys normal. Omentum contained much adipose tissue. Intestines normal. Bladder normal, contained a small quantity of urine. Brain somewhat congested, otherwise normal. Blood in a fluid state.—Remarks: The snake which inflicted the fatal wound was not seen; in all probability Colonel M—— trod on one asleep, which then struck at him. The systemic shock was at once apparent after receipt of the injury, which is accounted for by the puncture of the internal saphena vein, and the introduction of the poison direct into the general circulation. The clothing traversed by the fang of the snake was, first, cloth gaiter; second, khakee riding breeches; third, drawers of light material. From the high situation of the puncture, the opinion of competent judges was that the snake which inflicted the wound was a 'black mamba' [one of the viper species not determined].

(*To be continued.*)

"Fort Curtis, Etshowe, Zululand, Nov. 10th, 1883."

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The annual meeting of this Association was held on January 31st. The reports of the committee showed the continued prosperity with a steady increase of members and funds. The following gentlemen were elected office-bearers and members of committee for the year 1884:—President: Dr. Lloyd Roberts. Vice-Presidents: Mr. G. Bowring, Dr. Cullingworth, Mr. F. H. Walmsley, Dr. S. Woodcock. Treasurer: Dr. Joseph Stone. Secretaries: Dr. Wahltuch, Mr. J. Broadbent. Committee: Drs. H. Ashby, W. H. Barlow, S. Buckley, F. H. Collins, A. M. Edge; Messrs. J. Foster, E. Meacham, J. Westmorland; Drs. C. E. Glascott, W. J. Mallett, F. M. Pierce, W. Walter.

ON THE

PHYSIOLOGY OF THE CARBOHYDRATES IN THE ANIMAL SYSTEM.

BY F. W. PAVY, M.D., F.R.S.

(Continued from p. 193.)

Maltose and Grape Sugar.

TEN cub. centims. of the solution of grape sugar, equivalent to ·207 grm. glucose, were mixed with 50 cub. centims. of the solution of maltose having a reducing power equivalent to ·165 grm. glucose before boiling with sulphuric acid and ·426 after, and water added to bring the volume to 150 cub. centims. This was divided into three equal parts, which were dealt with as shown below, the results obtained being mentioned.

	Figures theoretically yielded.	Figures actually obtained.
Before treatment with acid	·372 grm.	·375 grm.
After boiling five minutes with citric acid	·372 ,,	·375 ,,
After boiling one hour and a quarter with sulphuric acid	·633 ,,	·639 ,,

Thus, observation shows that there is no difficulty in distinguishing the carbohydrates in combinations under the conditions required to be unravelled. Now let us see how the results stand when the mode of investigation described is put into practice.

Experiment.—Some cane sugar, scrapings from the intestine of a dog, and about 150 cub. centims. of water were placed in a wide-mouthed bottle and exposed to a temperature of 120° F. Twenty cub. centims. were removed at the subjoined periods, made up to 150 cub. centims. with water, divided into three parts of 50 cub. centims. each, and examined—one part by titration at once, and the other two parts after boiling for seven minutes with citric acid (2 per cent. strength) and sulphuric acid respectively. The figures give the cupric-oxide reducing power expressed as glucose, calculated for what it would be under the different circumstances in the whole 150 cub. centims. (to which the 20 cub. centims. were diluted) of liquid each time subjected to analysis. An analysis of the intestinal product itself that was employed gave no reducing action before or after treatment with sulphuric acid.

At the end of five minutes.	Cupric-oxide reducing power expressed as glucose.
Before treatment with acid	·036 grm.
After boiling with citric acid	·087 ,,
After boiling with sulphuric acid	·120 ,,
At the end of ten minutes.	
Before treatment with acid	·042 ,,
After boiling with citric acid	·096 ,,
After boiling with sulphuric acid	·123 ,,
At the end of fifteen minutes.	
Before treatment with acid	·045 ,,
After boiling with citric acid	·093 ,,
After boiling with sulphuric acid	·120 ,,
At the end of twenty minutes.	
Before treatment with acid	·060 ,,
After boiling with citric acid	·093 ,,
After boiling with sulphuric acid	·123 ,,
At the end of thirty minutes.	
Before treatment with acid	·063 ,,
After boiling with citric acid	·093 ,,
After boiling with sulphuric acid	·120 ,,
At the end of forty-five minutes.	
Before treatment with acid	·066 ,,
After boiling with citric acid	·087 ,,
After boiling with sulphuric acid	·123 ,,

Let us now examine these figures. At the end of five minutes the 20 cub. centims. of liquid taken from the bottle contained a product derived from the transformation of the cane sugar originally present, possessing a cupric-oxide reducing power equivalent to ·036 grm. of glucose. After boiling with citric acid the contents of the 20 cub. centims. possessed a reducing power equivalent to ·087 grm. glucose,

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and after boiling with sulphuric acid ·120 grm. of glucose. The last figures actually represent glucose, and give the total amount producible from the carbohydrate present in the 20 cub. centims. of liquid. Now, if the 20 cub. centims. of liquid removed at the end of five minutes had contained glucose and untransformed cane sugar, as cane sugar is convertible into glucose by boiling with citric acid, the figures would have been raised after boiling with citric acid from ·036 to ·120, or to the same as after boiling with sulphuric acid. As a matter of fact they were only raised to ·087. It is, therefore, absolutely manifest that the carbohydrate corresponding with the difference between ·036 and ·120 could not simply represent untransformed cane sugar. But the difference between ·036 and ·087 may be read as constituting untransformed cane sugar converted into glucose by boiling with citric acid, and if we deduct this representative of untransformed cane sugar, which amounts to ·061, from the total carbohydrate expressed as glucose—viz., 120, the result will be that a product is left with a reducing power equivalent to ·036 grm. of glucose before treatment with sulphuric acid and ·069 after—that is, a dextrin possessing a cupric-oxide reducing power standing in the relation of 52 to glucose at 100.

With the other portions that were removed at successive periods the figures show a progressive conversion of the cane sugar originally present. At the end of forty-five minutes the 20 cub. centims. possessed a reducing power before treatment with acid equivalent to ·066 grm. of glucose, ·087 after treatment with citric acid, and ·123 after treatment with sulphuric acid. The difference between ·066 and ·087 represents untransformed cane sugar which had become reduced to that which corresponds with ·020 grm. glucose, instead of ·051 grm., as in the first 20 cub. centims. removed for analysis. Taking away the untransformed cane sugar, a product is left with a reducing power equivalent to ·066 grm. of glucose before treatment with sulphuric acid and ·102 after. These figures stand in the relation of 62 to 100, and practically the product may be regarded as maltose.

If we take away the untransformed cane sugar existing in the 20 cub. centims. removed at the end of ten minutes, the product left represents the reducing power before and after treatment with sulphuric acid of 60 to 100; at the end of fifteen minutes 62 to 100; at the end of twenty minutes 66 to 100; and at the end of thirty minutes 66 to 100; whilst, as already stated, at the end of forty-five minutes the figures stood as 62 to 100. There is here a slight discordancy existing, but nothing more than may be fairly presumed as falling within the range of liable error in the process of analysis; and, looking at the experiment altogether, it may be considered that the transformation did not advance beyond maltose, and that at the end of the time allowed some untransformed cane sugar still remained.

Experiment.—Some cane sugar solution was placed in a wide-mouthed bottle with some finely divided intestine of a cat, and about 150 cub. centims. of water, and exposed to a temperature of 120° F. Portions of 20 cub. centims. each were removed at the periods mentioned below, and submitted to analysis, with the following results :—

	Cupric-oxide reducing power expressed as glucose.
At the end of five minutes.	
Before treatment with acid	·030 grm.
After boiling with citric acid...	·045 ,,
After boiling with sulphuric acid... ...	·060 ,,
At the end of fifteen minutes.	
Before treatment with acid	·033 ,,
After boiling with citric acid...	·042 ,,
After boiling with sulphuric acid... ...	·060 ,,
At the end of thirty minutes.	
Before treatment with acid	·039 ,,
After boiling with citric acid...	·039 ,,
After boiling with sulphuric acid... ...	·060 ,,
At the end of one hour.	
Before treatment with acid	·039 ,,
After boiling with citric acid...	·039 ,,
After boiling with sulphuric acid... ...	·060 ,,
At the end of two hours.	
Before treatment with acid	·039 ,,
After boiling with citric acid...	·039 ,,
After boiling with sulphuric acid... ...	·060 ,,

The results belonging to the above experiments may be read in the following way :—At the end of five minutes the reducing power before treatment with acid was equivalent to ·030 grm. of glucose, after boiling with citric acid to ·045, and after boiling with sulphuric acid to ·060. ·015 grm. of untransformed cane sugar therefore existed, and this deducted leaves a product with the reducing power equivalent to ·030 grm. of glucose before boiling with sulphuric acid and ·045 grm. after. These figures stand in the relation of 66 to 100. At the end of fifteen minutes the untransformed cane sugar had become reduced to ·009 grm., and the figures left, after the deduction of this, stand in the relation before and after treatment with sulphuric acid of 64 to 100. At the end of thirty minutes, boiling with citric acid produced no alteration in the product. The figures were the same after as before. No untransformed cane sugar therefore existed. Boiling with sulphuric acid, however, carried the reducing power from the equivalent of ·039 grm. of glucose to ·060 grm. The relation of these figures is as 65 to 100. At the end of one hour, and two hours, the condition was the same as at the end of half an hour. The ferment present, therefore, in half an hour had done its work, which was to leave no untransformed cane sugar, and to produce a body closely approaching in reducing power maltose, if it did not actually consist of maltose.

Experiment.—In this experiment a large quantity of ferment was purposely used. The ferment consisted of finely divided rabbit's intestine, and this was mixed with some cane sugar solution and about 300 cub. centims. of water, and exposed to a temperature of 120° F. Fifty cub. centim. portions were taken at the undermentioned periods for examination, and the following results obtained :—

	Cupric-oxide reducing power expressed as glucose.
At the end of seven and a half minutes.	
Before treatment with acid	·090 grm.
After boiling with citric acid...	·108 ,,
After boiling with sulphuric acid... ...	·186 ,,
At the end of fifteen minutes.	
Before treatment with acid	·120 ,,
After boiling with citric acid...	·120 ,,
After boiling with sulphuric acid... ...	·184 ,,
At the end of thirty minutes.	
Before treatment with acid	·150 ,,
After boiling with citric acid...	·150 ,,
After boiling with sulphuric acid... ...	·186 ,,
At the end of forty-five minutes.	
Before treatment with acid	·180 ,,
After boiling with citric acid...	·186 ,,
After boiling with sulphuric acid... ...	·184 ,,
At the end of one hour.	
Before treatment with acid	·186 ,,
After boiling with citric acid...	·186 ,,
After boiling with sulphuric acid... ...	·186 ,,

An illustration is afforded by this experiment of cane sugar being carried into glucose, and the intermediate stages are displayed. At the end of seven and a half minutes there remained cane sugar equivalent to ·018 grm. glucose, and the other product had a reducing power below that of maltose, the relation of its reducing power before and after treatment with sulphuric acid being as 53 to 100. At the end of fifteen minutes there was no untransformed cane sugar, the reducing power being the same before boiling with citric acid as after, and the relation in the reducing power before and after boiling with sulphuric acid was as 64 to 100. At the end of thirty minutes the reducing power of the product had advanced and stood as 80 before treatment with sulphuric acid to 100 after. At the end of forty-five minutes there was so little difference between the figures before and after boiling with the acids that practically, it may be considered, glucose existed. At the end of one hour all the figures obtained were absolutely identical, and therefore indicative in a literal manner of the presence of glucose.

The Portal Blood after the Ingestion of Cane Sugar.

I have shown how cane sugar is moved when brought into contact with portions of the alimentary tract, and the nature of the principle into which it may be moved has been just discussed. Evidence is now required to be given of what physiologically occurs, and this is furnished by an examination of the portal blood. By looking to the condition of the portal blood after the introduction of cane sugar into the

stomach of a fasting animal information is supplied of the state in which the carbohydrate exists immediately subsequent to absorption. The following experiments in unmistakable terms show that it is not as glucose cane sugar enters the circulation. In both experiments the product encountered in the portal system possessed a cupric-oxide reducing power below that of maltose.

Experiment.—One ounce (28 grms.) of cane sugar, dissolved in three ounces (85 cub. centims.) of water, was introduced into the stomach of a rabbit which had been last fed twenty-four hours previously. In half an hour's time the animal was killed, the abdomen instantly opened and portal blood collected. Twenty-seven grms. were obtained for analysis. The blood was poured into spirit in the usual way and the alcoholic extract evaporated down and treated with sulphate of soda. The following were the figures yielded :—

	Cupric-oxide reducing power expressed as glucose.
Before sulphuric acid	·016 grm.
After ,, ,, ...	·034 ,,

Relation 47 to 100.

Experiment.—Thirty grms. of cane sugar dissolved in 60 cub. centims. of water were, through an elastic tube passed down the œsophagus, injected into the stomach of a dog which had been previously subsisting upon a meat diet. Twenty minutes afterwards the animal was killed and portal blood immediately obtained for analysis. Thirty grms. were taken and treated with spirit. Subjoined are the figures that were yielded :—

	Cupric-oxide reducing power expressed as glucose.
Before sulphuric acid	·034 grm.
After ,, ,, ...	·074 ,,

Relation 45 to 100.

Some of the same blood was subjected to examination for the presence of cane sugar by boiling with citric acid, and it was found that the figures obtained after boiling with citric acid were the same as those yielded before. No cane sugar therefore existed.

(*To be continued.*)

ON PAROXYSMAL HÆMOGLOBINURIA.

By STEPHEN MACKENZIE, M.D., F.R.C.P.,
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, THE LONDON HOSPITAL.

(*Concluded from page 200.*)

Other phenomena of the paroxysm.—In most cases a chill precedes the occurrence of blood in the urine. In some cases, as in those recorded by Dickinson, Lichtheim, Rosenbach, and Boas, and in Case 3, the initial symptoms consist of immoderate yawning and stretching of the limbs. The chill may be slight, or it may go on to a regular rigor. The patients are nearly always conscious of the sensation of cold, and they often know by experience whether the sensation of cold is sufficiently intense to be followed by bloody urine. The sensation of coldness may be limited to exposed parts or to the extremities, but often it is general. In artificially induced attacks blood has appeared in the urine without outward manifestations of a chill.[1] There is often a condition of cutis anserina excited, and urticaria has been present in a fair number of recorded cases; the urticaria concurring with the bloody urine following cold, and often limited to exposed parts (as in my previous case, and as observed by Forrest, Lichtheim, Küssner, and others). In some cases in the cold stage, the patient's nose, ears, and hands become dusky or cyanotic; and occasionally this condition may go so far as to assume the appearance described by Raynaud[2] as local asphyxia or symmetrical gangrene. Conversely, in cases of Raynaud's disease, hæmoglobinuria has been shown to exist (Wilks,[3] Southey,[4] Barlow, and Mahomed[5]). Accompanying the chill and other symptoms there is sometimes great thirst, as in Case 3. Boas mentions in one of the cases in which he induced attacks that the patient drank about two litres of water in a short time. Drowsiness often supervenes. In some cases headache is a marked symptom. Pains are sometimes present in different cases, in various positions. Some patients have severe colicky pains in the abdomen, some have pain in the back. There is sometimes tenderness on deep pressure over the kidneys in the back. The testicles are sometimes retracted. (Dickinson.) The temperature in some cases remains normal throughout; in others there is a marked rise (as high as 105·2° F., Saundby), and the rise may be preceded by a fall of temperature which may be general, or limited to the exposed parts. A valuable case giving records of the temperature in intentionally, but naturally, induced attacks is given by Dr. Matthew Charteris.[6] Sweating often accompanies the reaction from the chill, and it may be general or local. Nausea and vomiting are sometimes observed, both in the spontaneous and induced attacks. The patient sometimes has a feeling of intense prostration in the attack, and there may be collapse.[7] In some an icteric tint in the skin and conjunctivæ follows an attack, or, if previously present, becomes intensified. The liver and spleen have been found enlarged in one or two cases, an increase taking place during the attacks; but these conditions are too inconstant to have any bearing on the essential nature of the disease. The duration of the attack varies in different cases, and depends probably on the duration of the exciting cause and the individual's susceptibility to its influence.

Such are, in general, the phenomena of a paroxysm. Between the attacks the patient may feel and appear quite well, or he may feel weak and prostrate, and have an anæmic or faint icteric tint. That the patient should become weak and pale when we consider the amount of blood destroyed is not surprising. Laache[8] has shown that in a case of Heiberg's the corpuscular richness fell to 46, and the hæmoglobin to 52, per cent. of the normal. A more remarkable fact is that in some patients, as in Case 1, the appearance of health is preserved throughout, and it must be taken to show how quickly blood losses are repaired in such. Working men as a rule return to work the day following an attack. Case 3 went out shooting the next day to his severe initial paroxysm.

What is the pathology of this curious disease? Two things are certain from the observed phenomena of the paroxysm. 1. That a blood dissolution takes place. 2. That in the majority of cases this is brought about by the influence of cold. We shall presently see that probably there is a second factor contributing to the blood dissolution. I think there can be no question that a blood dissolution or destruction takes place. In the overwhelming majority of cases blood-colouring matter only is found in the urine, and the occurrence of blood-corpuscles must be regarded as infrequent, unessential, and accidental. We must examine into the evidence as to where the blood dissolution takes place. I formerly thought that the kidney itself was its seat; that in the attack, owing to chilling of the surface and contraction of the cutaneous vessels, blood was driven into the renal glomeruli under such pressure that the hæmoglobin was expressed from the corpuscles and excreted by the kidneys.[9] Drs. Roberts[10] and Pavy[11] also believe that the blood escape is produced by altered vascular conditions in the kidney produced by cold, through the influence of the nervous system. Murri formerly advanced a view identical with that I ventured to suggest, but he has since discarded it. I based my opinion chiefly on the fact that the blood serum had not been found to contain dissolved hæmoglobin. Since then, however, valuable additions have been made to our knowledge, and it is necessary to reconsider the question. Hayem, Küssner, Boas, Strübing,[12] and Fleischer[13] have shown that the serum of the blood, obtained by cupping the patient, does contain dissolved hæmoglobin, and that it varies in tint from a yellow to a ruby red. Whether this is true of all cases or not it is certain then that it occurs in some. It is well known that when blood dissolution takes place, and the colouring matter circulates in the blood stream ("Hæmoglobinæmia," as

1 Rosenbach, op. cit., p. 134. 2 De l'Asphyxie Locale (Paris, 1862).
3 Med. Times and Gazette, 1879, vol. ii., p. 207.
4 Clin. Soc. Trans., 1883, vol. xvi., p. 167; Ibid., vol. xvi., p. 179.
5 Discussion at the Clinical Soc., THE LANCET, May 5th, 1883.
6 THE LANCET, Aug. 30th, 1879, vol. ii., p. 306.
7 Rosenbach, Berl. Klin. Wochenschr., 1880, No. 10, p. 434.
8 Die Anæmie, p. 45, Christiania, 1883.
9 THE LANCET, 1879, vol. ii., pp. 116 and 155.
10 On Urinary and Renal Diseases, 3rd edit., p. 152.
11 THE LANCET, 1866, vol. ii., p. 34.
12 Deut. Med. Woch., 1882, No. 1. 13 Berl. Klin. Woch., 1881, No. 47.

Ponfick calls it), when it reaches the kidneys they separate and excrete it. Blood dissolution is brought about in a variety of ways, by the injection into the blood or tissues of diluted glycerine, naphthol, arseniuretted hydrogen, chlorate of potash, phosphorus, bile acids, ether, blood dissolved by freezing, &c., and it occurs in connexion with typhus, yellow fever, and scarlet fever, occasionally, and after severe burns. The hæmoglobinuria of cattle and horses I have not time to discuss; in that of the latter hæmoglobin has been shown to be dissolved in the serum. It is important to clearly discriminate between these causes of hæmoglobinuria and the paroxysmal disease excited by cold, but these conditions may throw a side-light on some of its phenomena. As already stated, when hæmoglobin dissolved in the blood serum reaches the kidneys, they excrete it as long as their powers remain intact. Bridges Adams has shown[14] that the hæmoglobin is separated both in the glomeruli and tubes, but in Dr. Dreschfeld's case, brought before the International Medical Congress in London, in conjunction with Mr. Stocks,[15] it will be seen that the blood colouring matter is confined to the convoluted and straight tubes, none being found within the glomeruli or Bowman's capsules. Moreover, as Ponfick has shown,[16] when the blood of an animal of a different species is transfused into the circulation, the foreign elements part with their hæmoglobin, and perish. Coincidently with this circulation of dissolved hæmoglobin there occur in the human subject, when lamb's blood is transfused, rigors, high temperature, and later sweats; and the phenomena of paroxysmal hæmoglobinuria may, as Lichtheim has pointed out, be so far imitated as to induce an attack of nettlerash. If the amount of hæmoglobin in the blood is very great, the secreting power of the kidneys is injured, and if sufficiently prolonged, it may cause death by pathological changes induced in them. (Ponfick)

It is clear from these considerations that dissolved hæmoglobin does circulate in the general blood stream, in some cases at least; that some of the symptoms observed in these paroxysmal cases may be due to this cause; and that the kidneys may be passive, merely eliminating the hæmoglobin. Lépine believes in two forms of the disease—in one of which destruction of blood-corpuscles takes place in the blood, whilst in the other it occurs in the kidney.

If the blood dissolution occurs in some part of the circulation apart from the kidney, where does this take place? To the solution of this question Boas has made some observations of much importance. He made a patient subject to the attacks breathe for half an hour air cooled by passing over iced water. The experiment was repeated several times without the patient experiencing the subjective symptoms of an attack, or alterations taking place in the urine; but during the shivering stage of an attack induced by the patient holding the hands in iced water, the serum obtained by cupping was found to contain hæmoglobin, and the urine to be bloody. On pricking a finger and examining the blood, he found an absence of the natural rouleaux; the red corpuscles were paler than natural, they appeared larger and more translucent than normal, their shapes were altered so that many were spindle-shaped, three-cornered, and oval, and, what was especially noteworthy, an alteration (Moderabilität) of their contour. These appearances were compared with those of the blood of a healthy man, drawn and examined at the same time. In a second case, in a well-marked experimentally induced attack, the blood showed no abnormality, except a marked increase of white corpuscles, which he considered physiological. A third patient, a subject of the disease, placed his middle finger in a glass of broken ice. After about a quarter of an hour blood drawn from the cooled finger was examined. It showed no alteration in the number of red blood-corpuscles, but rouleaux formation had quite disappeared, and great alterations had taken place in the shapes of the corpuscles. In addition to these changes larger and smaller polymorphous, opaque, dark-brown blood-flakes (Schollen) were seen. Such blood-flakes he had observed in normal blood, but not in such numbers. Still more evident were the changes in another finger of the patient's same hand, which finger had been shut off from the general circulation by means of an elastic ligature. (He had assured himself by observations on his own and the patient's blood when so shut off that no alterations were so produced.) After this bound finger had been in iced water for ten minutes the blood showed the same alterations as in the former examination, but much more marked, with a greatly increased number of blood-flakes. A third finger constricted, but not cooled, showed only scattered blood-flakes, no alterations in the blood-corpuscles. These experiments were repeated on another occasion. He found in a constricted finger cooled in iced water a great tendency to alterations in shape of the red blood-corpuscles, some corpuscles devoid of colour (Ponfick's phantom corpuscles), others showing a granular clouding, besides blood-flakes between the masses of corpuscles which did not form rouleaux. Examination of the patients' fingers not so cooled showed no alteration in the number of red or white corpuscles. The colour of the red corpuscles was quite natural, but they showed an extraordinarily delicate condition, appearing to have a tendency to dissolution and form alterations.[17] Under the transparent cloak of the initial D, a writer in the *Medical Times and Gazette*,[18] who had himself at that time suffered from the disease eleven years, says, "If a drop of blood from the pricked finger be examined under the microscope, the globules appear to be deficient in outline, soft, and soon melt down into an irregular network. In fact, I should describe the essence of the disease as a hurried and imperfect formation of blood-corpuscles, which readily stagnate in the capillaries under cold and quickly perish, and so are eliminated by the kidneys as a broken-down mass of blood stuff, whereas, under healthier circumstances, they would be discharged as bile and urinary pigment." Murri has also depicted marked alterations in the shape of the red blood-corpuscles. J. Wolff[19] reported pœcilocytosis, microcytes, pale colour, of red blood-corpuscles, diminished tendency to rouleaux formation, but no phantom corpuscles. He noticed no differences between the paroxysmal and inter-paroxysmal blood, nor in the blood of the ligatured finger immersed in cold water. On the other hand, Rosenbach,[20] in an artificially induced attack, found no alteration in the blood during the paroxysm, beyond an increase of the white corpuscles (six to eight in the field). Hayem found no alterations except the appearances of anæmia. In Dr. Wilks' important case there was only noticed an increase in size of the white corpuscles and excess of fibrine.[21] In Dr. Grainger Stewart's case the only peculiarity noticed was that the corpuscles did not form rouleaux, some of the corpuscles sticking together by their edges, but the bulk of them formed into irregular masses. The colourless corpuscles were not increased in number, but some of them were pigmented. The patient had had ague in India.[22] I examined the blood of my previous case and of Case 1 (I think, also, that of Case 2), when they were passing black urine, but not in the cold stage, but could not find any alterations in the appearances. Dr. Adam examined the blood three days after an attack, but the only noticeable peculiarity was an absence of rouleaux formation.[23] The examination of the blood in different parts of the body seems to be a direction in which good work may be done, and cases of local asphyxia appear especially deserving of study. Boas concludes from his own observations that in each attack the primary condition is a destruction of the red blood-corpuscles, taking place locally in the parts exposed to cold, and that the general symptoms are secondary to this blood destruction and the circulation of the dissolved hæmoglobin. No evidence exists as to whether bile acids are present in the blood in this disease, paroxysmally or inter-paroxysmally.

So far we have only considered the blood dissolution and elimination. The circumstances of the attack indicate an exaggerated sensibility of the cutaneous nerves or their centres. Raynaud and Bernhardt believe that local asphyxia depends on increased irritability of the vaso-motor centre in the medulla oblongata or spinal cord, kept up by peripheral stimulation, in consequence of which slight depressions of temperature are sufficient to excite changes that, in healthy persons, would only be induced by exposure to a very low temperature, or exposure for a long time. This is an essential factor in the development of the paroxysms. On what it depends we do not know. Healthy persons exposed to the same degree of cold do not get the chills. The concurrent urticaria of some cases indicates the neurosal nature of the disease. There have been recorded,

[14] Centralblatt f. d. Med. Wissenschaft, 1881, s. 240.
[15] Trans. Intern. Med. Congress, 1881, vol. i., p. 398.
[16] Exper. Beiträge, Virchow's Archiv., Bd. 62.
[17] Boas, Paroxysmale Hæmoglobinuria, Deutsch. Archiv. für Klin. Med., 1883., p. 374. [18] Vol. i., p. 215, 1879.
[19] Centralblatt für die Med. Wissenschaft., 1883, p. 820.
[20] Berlin. Klin. Wochensch., 1880, p. 134. [21] Op. cit.
[22] Brit. Med. Jour., 1878, vol. ii., p. 103. [23] Glasgow Med. Jour., 1879.

however, some cases in which severe muscular efforts have been the exciting causes of the attacks. Fleischer[24] and Strübing[25] have recorded cases in which the attacks followed prolonged marches. In Sir Wm. Gull's case the blood in the urine was increased by lifting a heavy weight or walking much; and in one of Dr. Wickham Legg's cases the first attack was thought to follow a long ride. Dr. Druitt, moreover, mentions that psychical disturbances are sufficient to induce attacks in a very sensitive subject, whose attacks were usually caused by cold.[26] In the majority of cases the exciting cause is cold acting on a hypersensitive reflex nervous system. Whether the blood destruction occurs in all cases in the exposed parts, or in others in the kidneys or elsewhere, I consider not quite determinable at present. Boas's observations have evidently been made with great care and completeness, and are entitled to careful consideration and repetition. It is interesting in connexion with paroxysmal hæmoglobinuria to notice the occasional association of temporary albuminuria from exposure to cold. Dr. George Johnson has recorded some cases[27] following cold bathing; and Dr. Hermann Weber has mentioned[28] a case of hæmaturia and albuminuria following immersion in water. I have a case under observation where albuminuria, and occasionally hæmaturia, follow unusual exposure to cold.

There remains to consider whether there is not another factor in the production of the blood dissolution, which has been foreshadowed in the observations as to the appearances of the blood-corpuscles. Have the blood-corpuscles in the subjects of this disease a lessened resistance to the action of the conditions to which they are exposed (cold and possibly carbonic acid), so that they part with their hæmoglobin more readily than in the circumstances of health? The evidence supplied by the appearances of the blood-corpuscles is suggestive, but at present inconclusive. But there is other evidence. A considerable number of the recorded cases have suffered from syphilis, and some of these have been cured of their hæmoglobinuria by antisyphilitic treatment.[29] Others have undoubtedly previously suffered from ague, though certainly in many cases there is no evidence of this agency being in operation. Some again appear to have been rheumatic, as in a series of cases recorded by Dr. Fenn of Richmond.[30] It is possible that in these conditions a certain imperfection of blood formation takes place, and that the connexion between the stroma and hæmoglobin of the red blood-corpuscles is less tenacious than in healthy corpuscles. In this way it may be that constitutional states are an element or factor in the production of some cases. Thus possibly may be explained the second outbreak of the disease in Case 2, when his health was deteriorated, probably in connexion with the long-standing ulceration of the skin (strumous?). In this way may also possibly be explained the fact that whilst in some cases the disease persists for years, in others it is a temporary and evanescent condition. Morbid anatomy has thrown no light on the disease. Murri found in one case both kidneys disseminated with tubercle, and displacement of the right kidney (with two renal arteries). There were large collections of pigmen in the cortical tubes. Prof. Murri thinks that the post-mortem appearances in this case, and in another he mentions, throw no light on the nature of the disease.[31] Otto has published another case. "Soon after the attack recorded the patient died of an intercurrent disease, the urine remaining normal in colour till death. The left kidney was found twice as large as the right, which was of normal size. Both kidneys are said to have been normal in structure, but it is not stated if they were examined microscopically."[32] It is not likely that morbid anatomy would reveal any pronounced lesion in a disease that may last upwards of twenty years without seriously disturbing the health.

It is possible that under this disease there are conditions varying in their causation. It occurs at all ages, with a very marked predominance in young adult males. It may, as in an instance recorded by Dr. Saundby, be hereditary; a father and at least two children having suffered. It often begins quite abruptly, under conditions apparently similar to which the patient has been repeatedly exposed without evoking an attack. It may prove transitory, lasting a few months or less, or it may prove a life-long companion. When apparently cured, it is very prone to recur. The disease exists in various degrees of intensity, and it is possible that minor degrees of it occur in untrained observers without recognition. In some cases immersing a finger or two in iced water will provoke an attack; in others, continuous exposure to a considerable degree of cold is necessary to call it forth, and even then the symptoms may be exceedingly slight. The disease is, as a rule, more frequent in winter than in summer, simply because the opportunities to exposure to cold are more frequent then. The disease occurs in summer, as is shown in Cases 1 and 3, and it has indeed been shown in one case that the attacks were more frequent in summer, owing to the patient remaining in-doors in the winter. The disease is stated to be not uncommon in India. Of course, in hot climates opportunities are afforded of getting chills, whilst at the same time they can be avoided. Probably malaria is an important factor in these tropical cases.

In conclusion, one or two words only on treatment. The uncertainty which underlies the pathology of the disease must be reflected in the treatment. We have seen that there is some evidence that constitutional conditions are a factor in the production of the disease. Whenever, therefore, any dyscrasic condition is discoverable, our treatment must be directed against it. Where syphilis has been an etiological influence, the disease has in several cases, it is asserted, been cured by mercury and iodide of potassium. Syphilis should certainly be always inquired for, and, when there is positive or presumptive evidence of its existence, antisyphilitic treatment tried. In some obviously malarial cases benefit has followed the administration of quinine in full doses. Quinine has, moreover, proved serviceable in a great many cases in which there has been no evidence whatever of malarial infection. Indeed, with the exception of some syphilitic cases and one case treated by the late Dr. Warbuton Begbie by ammonium chloride, most of the recorded cases that have improved have done so when taking quinine. It is possible that some of them would have got better without it. Most patients find avoidance of cold, the usual exciting cause, the only effectual treatment, and just in proportion as they are able to protect themselves from cold by clothing and habits do they escape attacks. In this way some have sought immunity, with varying success, in warmer climes. Whilst experience teaches nearly all patients that cold is to be especially avoided, it is possible that a gradual accustoming the hypersensitive integument to cold may be at once the most philosophical and most successful treatment. Dr. Barlow has mentioned a case[33] in which marked benefit had occurred by washing a child suffering from this disease with cold instead of warm water, and another patient of Dr. Barlow's reported benefit from this treatment. In a case published by Küssner, and supplemented by Boas,[34] the patient was benefited so much by cold water treatment (Kaltwassercur) that on leaving the hospital he was able to go out into the cold air without an attack being produced. Only when he went back to work, which involved continuous exposure to cold, did the paroxysms again make their appearance. I have not tried this treatment myself, but I think Dr. Barlow's suggestion well worthy of trial, and shall certainly employ it in the next suitable case I have to treat.

It will be seen that great uncertainties still underlie our knowledge of the disease. The following seem directions in which careful observations are likely to throw light on the pathology of the disease.

A. Microscopical examination of the blood. 1. Between the paroxysms. 2. During the paroxysms. (*a*) In exposed parts, or in parts artificially cooled, with and without previous ligaturing. (*b*) Simultaneous observation at other and unexposed parts.

B. Examination during the paroxysms (by spectroscope or guaiacum test) of the blood-serum obtained by cupping or a blister.

C. Observations as to whether albumen precedes the appearance of blood-colouring matter in the urine, in the paroxysms, and whether it remains for a time after all trace of blood colouring matter has disappeared.

[24] Op. cit. [25] Op. cit.

[26] Medical Times and Gazette, 1873, vol. i., pp. 408 et seq.

[27] Clinical Society's Transactions, vol. vii., p. 42.

[28] British Medical Journal, 1879, vol. ii., p. 664.

[29] Murri. [30] Brit. Med. Journ., 1878, vol. i., p. 465.

[31] Dell' Emoglobinuria da freddo Revista Clinica di Bologna, 1880. Murri believes now that the essence of the disease is, (1) in a diseased condition of the blood-forming organs, which imparts to a number of the red blood-corpuscles a diminished resistance against cold, and perhaps against CO_2; (2) in an increased irritability of the vaso-motor reflex centre

[32] Berlin. Klin. Woch., 1882, No. 30, and Medical Times, 1882, vol. ii., p. 474.

[33] THE LANCET, May 5th, 1883. [34] Op. cit.

A CASE OF INFANTILE SCURVY.

BY EDMUND OWEN, F.R.C.S.,
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FANNY T——, a miserably nourished infant, a year and nine months old, was admitted to the Children's Ward of St. Mary's Hospital on March 26th last. She was anæmic and had a strange leaden aspect. She lay helplessly on her back and moaned incessantly. A few weeks previously the right leg suddenly swelled, and at the time of admission the whole limb looked half as large again as the other, the skin being œdematous, shiny, and tense, but its temperature was not perceptibly raised nor was its surface at any time reddened. The limb was somewhat everted and quite motionless; the knee was extended. The gums were swollen, spongy, and discoloured with capillary hæmorrhages, and they bled at the slightest touch; the abdomen was large and tympanitic; and the spleen was increased in size. The carpal ends of the radii were enlarged and the ribs were beaded, but the thorax was not misshapen. Nine months after its birth the mother died of phthisis, and the infant was brought up on condensed milk, Ridge's food, Chapman's wheat-meal, and bread-and-butter; fresh cow's milk and water had at no time formed an important element in the diet. In fact, for all the fresh food that the infant had had she might as well have been in an ill-found ship in the arctic regions. The was no reason for suspecting the existence of a syphilitic taint.

The patient was placed in a cot near the fire and twice a day the body was rubbed over with cod-liver oil; three times a day she was made to take half a grain of quinine in some syrup and water. The diet consisted of a liberal quantity of cow's milk and water, some fresh vegetables, as potato mashed up with gravy, and some sweetened orange-juice. The limb was raised and firmly compressed with a soft roller. A puncture through the thickest part of the thigh with a cannula and trocar found the femur bare in all the surface over which the instrument could sweep; a few drops of blood escaped. During the six weeks that the patient was in the hospital there was no marked elevation of temperature, and at the end of that time she was sent home looking probably better than she had ever done in her life.

Frequent reference has been made at various times in THE LANCET to the somewhat recently discovered disease infantile scurvy, the first being by Dr. Cheadle, 1878, the last by Mr. Godlee a few weeks back. The present report is interesting chiefly from its being another illustration to the masterly essay upon the subject which was contributed by Dr. Barlow to the Transactions of the Medical and Chirurgical Society for last year. How it is that such cases are not more frequently recorded in London, where the use of condensed milk and of the many speciously advertised patent foods seems ever on the increase, is, I confess, a matter of surprise to me. Dr. Cheadle has suggested, however, that infantile scurvy may at times present itself in the shape of bleeding and spongy gums in ill-nourished children. I have myself met with two instances in which this condition of the mucous membrane was directly associated with a scurvy diet. Perhaps it is also that the fresh milk and the fresh mashed potato which these wretched hand-fed children get from time to time prevent the cachexia advancing to the stage of subperiosteal hæmorrhage and epiphysial separation.

The opinion which I have been compelled to form in my work in the out-patient rooms of the Children's Hospital is that the worst nourished of the hand-fed infants are those that have been reared upon condensed milk and the various patent food stuffs; and that whenever an infant cannot have human breast-milk, the best substitute will be found in fresh cow's milk prepared and administered *secundum artem*.

Seymour-street, W.

GERMAN HOSPITAL, DALSTON.—The thirty-eighth annual meeting of this charity was held on the 30th ult., when it was announced that the expenditure during the year had been £10,003 and the income £9427, the balance remaining in the bankers' hands on Dec. 31st being £119, against £723 on Jan. 1st, 1883. During the year a convalescent home containing 17 beds had been added, and 317 patients had already been admitted.

ON THE

INFLUENCE OF SMALL-POX HOSPITALS.

BY EDWARD T. WILSON, M.B.OXON., F.R.C.P.,
PHYSICIAN TO THE CHELTENHAM GENERAL HOSPITAL.

THE publication of Dr. Dudfield's Report on the Sanitary Condition of the Parish of St. Mary Abbott, Kensington, and recent comments upon it, seem to afford a suitable occasion for reopening a question which cannot be considered as finally settled. That question, stated broadly, is the influence of the aggregation of small-pox cases in hospitals on the patients themselves, as well as on the neighbourhoods in which these hospitals are placed. I shall deal with the latter of these first.

Mr. Power, in his laborious and ably argued report on Fulham Hospital, has arrived at conclusions so novel, so startling, so opposed to all previous experience, and so far-reaching in their effects, that it is no exaggeration to say that their general acceptance would revolutionise our ideas regarding small-pox infection, as well as our present modes of dealing with the disease. If the "particulate poison" of small-pox, rendered "different in quality, intensity, and potency," as Mr. Power suggests (by a not easily understood process of cross fertilisation) in the wards of a hospital can be carried through windows and ventilating openings into a still air or a London fog, and be wafted by "occasional light airs from nearly all points of the compass" over a circle having one mile for its radius, and infect the inmates of houses in a direct ratio to their distance from the hospital, it is time indeed that energetic measures were taken, not in the metropolis only, but by every sanitary authority in the kingdom. It takes but two primroses to produce a cross fertilisation, and who shall say, on Mr. Power's hypothesis, what two cases of small-pox may produce? If one-tenth of the dangers here hinted at were accepted as proved, and were generally realised by the public, a reaction against infectious hospitals of all kinds would set in, with results nothing short of disastrous. It is true, indeed, that the able medical officer of the Local Government Board and some of his colleagues "see no choice but to accept the conclusions" in Mr. Power's report, it is also true that THE LANCET has expressed an opinion that that report is "in the main unanswerable," yet I venture to think that these conclusions have not been generally accepted by sanitarians, and that the arguments adduced so ably by Dr. Dudfield, not only in his evidence before the Commission on Small-pox and Fever Hospitals, but also in his recent report, are worthy of the most careful attention, dealing as they do with the facts on which mainly the report of Mr. Power was founded.

The space at my disposal will not allow of more than a mere sketch of the main points at issue, with a clearance as far as possible of irrelevant matter, and points about which there is no dispute. It will be necessary, however, for clearness to recall the facts as nearly as possible in the order of their occurrence. During the years 1880-81 Dr. Thorne Thorne was engaged in making inquiry concerning the use and influence of hospitals for infectious diseases, and seventy such hospitals used by urban, rural, and port authorities in all parts of the country were examined, yet (a fact which cannot be too strongly insisted upon), in two instances only could the extension be traced of small-pox from a hospital "in a way that suggested conveyance of the infected matter through the atmosphere rather than by means of persons and things." And what were these two instances? "In both," I quote Dr. Thorne, "the hospitals in question were buildings which ought never to have been used by a sanitary authority for the isolation of cases of infectious disease, forming part, as each one did, of a row of dwelling-houses, and being in each case so situated that the patients had to be removed from the ambulances in the public thoroughfare."[1] At Leeds, where the house of recovery lies within a distance varying from 66 to 200 feet of neighbouring houses, 118 cases of small-pox were admitted in 1871, and "although the hospital authority would gladly have availed themselves of even a suggestion as to the spread of infection to the surrounding dwellings, in order to close their hospital against small-pox, no rumour of such an event was even heard of." Again, at

[1] Report, p. 40.

Nottingham, 234 cases of small-pox were received between December, 1871, and February, 1872, into a new wing, which was on one side bounded by a narrow thoroughfare, the windows of the small-pox wards and of the opposite dwelling-houses being only forty-four feet apart. No spread of small-pox from the hospital could be heard of, and the dwellings in the immediate vicinity of the ward buildings appeared to have exhibited immunity from the disease. We may conclude, therefore (slightly altering the terms of Dr. Thorne's report), that inferences from Mr. Power's report would, in any case, have to be cautiously made when it is sought to apply them to the country. Whilst Dr. Thorne was engaged upon his inquiry, early in the year 1881, statements were made that occurrences of small-pox in certain parts of London were related to the presence of the hospitals of the Metropolitan Asylums Board, and Mr. Power was associated with him for the purpose of investigating with all possible minuteness such evidence as might be forthcoming from the experience of these institutions. The result was Mr. Power's well-known report on the occurrences round Fulham Small-pox Hospital in the epidemic periods 1876–77, 1878, 1878–79, 1880–81.

To commence with the first. During the year 1876 an epidemic of small-pox had increased in London, until by the close of the year it had reached alarming proportions. Its course may be fairly traced in the following table, giving the order and number of admissions during the year to the hospitals of the Metropolitan Asylums Board.[2]

—	First Quarter (1876).	Second Quarter (April 2nd—July 1st).	Third Quarter (July 2nd—Sept. 30th).	Fourth Quarter (Oct. 1st—Dec. 31st).
Stockwell . . .	16	150	227	418
Homerton . . .	—	—	73	541
Homerton Fever Hospital . . .	—	—	—	245
Hampstead . . .	—	—	—	530

In November the disease began to spread in the three parishes of Chelsea, Fulham, and Kensington, and during December from thirty to forty cases were admitted to the Metropolitan Asylum Hospitals from this district. Fulham Hospital was not yet in existence. A most instructive map is given by Mr. Power, A (1), showing the incidence of disease in the Fulham district at this period, from which we gather that small-pox was well established at a point (which may conveniently be called K), near the Paddington canal, and also to the eastward of the site of the future hospital. There are about K in an area of half a mile square twenty-eight red dots indicating houses invaded by the disease. There are eighteen of these within the circle round the future hospital with one mile radius, afterwards termed by Mr. Power the "special area," and one within the quarter-mile limit; whilst to the east of this is seen the crest of an advancing wave in the shape of some fifty houses already invaded, the whole ocean beyond being kept out of sight by the exigencies of space and imperfect information. The important point to notice is that the advance is from the east westward on the three parishes, and upon the space which is to play such an important part in the future as "the special area" surrounding Fulham Hospital.

In the quarter Dec. 31st, 1876, to March 24th, 1877, the admissions to the Board hospitals reached the enormous total of 2434, and on March 10th, 1877, when Fulham was first opened, there had been during the course of the epidemic in the three parishes no less than 144 houses invaded, and in the mile area 18, 12 of the latter and 75 of the former having been attacked since the commencement of the year. By May 26th, 1877, the epidemic in the metropolis had reached its height; it was also making itself more felt in the three parishes, and the houses invaded in the mile area, which had been 5, 0, 2, 2, 1 in the successive fortnights from Jan. 6th, 1877, to March 3rd (when there was no hospital at Fulham) were 1, 1, 6, 6, 4, 7, 6, 8, 5 in the fortnights from March 17th to July 7th, a period during which no less than 190 acute cases and 254 convalescents had been admitted to the newly opened hospital. The very slight increase here noticed can scarcely cause surprise if we bear in mind that the wave of the epidemic was still at its height in the three parishes, and that before a single case had been admitted to the hospital the disease had already established a foothold within "the special area, and generally in the Kensington district." In Dr. Dudfield's report for 1878 a most useful table is given (p. 13), from which it appears that out of 109 cases reported in his district from Jan. 10th, 1877, to March 7th, no less than forty were treated at their own homes with results which can only be conjectured. In the two succeeding fortnights the invasions in "the special area" rose to 10 and 13 respectively, but as they reached 11 during the fortnight ending Dec. 22nd, 1877, when the hospital had been closed to acute cases since Oct. 27th, it will scarcely be held that the acute cases in the hospital had anything specially to do with the extension of the disease in its neighbourhood, even if we are finally led to believe that there was anything exceptional in the distribution or spread of small-pox, within the limits of the "special area." Again, it must be borne in mind that from March, 1877, to the close of the year 130 houses only were invaded within the one mile circle, and of these but 15 in the quarter mile circle, generally one, and never more than two, being reported in a single fortnight.

Now let us revert to the maps. We have seen in map A (1) that there were 18 invasions in "the special area" and 28 in the half-mile square (marked K) before the hospital at Fulham was opened. In map A (2) the fresh attacks within the special area have risen to 137, and mainly to the eastward, where the tide was seen advancing, whilst in the area K they have risen to 75, yet there is in the latter case no hospital to be blamed and no difficulty is found in accounting for the spread of the disease in the usual way.

The principal points, then, for notice in the epidemic period of 1876–77 seem to be as follows:—1. A widespreading epidemic of small-pox commences early in the year 1876 in the south-east and north-east of the metropolis, and later extends westward to Chelsea, Kensington, and Fulham. 2. Sporadic cases occur round the site of the future Fulham Hospital, and especially to the east and north.[3] 3. An increase takes place round these sporadic cases, especially at a point K, near the Paddington canal, where there is no hospital, and to the eastward of the site on which Fulham Hospital was opened on March 10th, 1877. 4. The reception of 190 acute and 254 convalescent cases between March 31st and June 9th, 1877, had not been accompanied by any material increase of the number of houses invaded within the "special area" over that which occurred on Jan. 6th, 1877, before the hospital was opened. 5. Such occasional sudden fortnightly increase in the houses invaded over the "special area," as from 5 to 10 or from 6 to 11, took place towards the close of the epidemic, and even two months after Fulham Hospital had been closed to acute cases. 6. Considering the small number of invasions within the quarter of a mile circle—viz., 15, scattered pretty evenly over the period from April 28th to Nov. 10th, and never exceeding two in the fortnight; considering also the well-known tendency of small-pox to spread in a district during an epidemic season,—none but the most general conclusions can be drawn as to their origin and the source of infection. In my next communication I shall hope to deal with the succeeding epidemics and the conclusions which seem fairly deducible from them.

(To be continued.)

[2] Report, 1877.

[3] Cf. Map A (1).

ON

PARALYSIS OF THE SERRATUS MAGNUS.

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(Concluded from p. 201.)

TWO symptoms of serratus paralysis which formerly were regarded as pathognomonic have been recently questioned: (1) the oblique position of the inner border of the scapula when the arms are pendent, and (2) the inability of the patient to elevate the arms above the horizontal plane. When the patient is erect and the arms are at rest in the vertical position, it has been generally accepted that in addition to the projection of the inferior angle, the internal border of the scapula of the affected side assumes an oblique direction, the inferior angle being nearer than the superior median angle to the vertebral column, the deflection being

attributed to tonus of the antagonistic muscles—the inner half of the trapezius, the rhomboidei, and the levator anguli scapulæ. Recently, in an elaborate paper opposing this view, Dr. Lewinski[1] states the question thus: the shoulder is supported principally by the middle portion of the trapezius, especially its lateral half, the normal serratus affording by its inferior portion a certain additional support, but the weight of the arm is fully counterbalanced by the trapezius alone. Should the serratus fail, obliquity of the scapula is not a necessary result; but, when the serratus is paralysed, the least diminution in the strength of the real supporter of the shoulder—the trapezius—leads to change of position, as all compensating power is now wanting. After an elaborate *résumé* of the dynamical mechanism of the shoulder-joint, the author of the paper states that scapular obliquity when present is due not to the action of the antagonistic muscles, but solely to the unbalanced gravity (Schwerkraft) of the arms. In support of this he instances a case in which the rhomboidei, levator anguli scapulæ, and almost the whole of the trapezius, as well as the serratus magnus of both sides, were atrophied. In the erect position with the arms pendent the following conditions were observed: The shoulder was lower, the upper median angle higher and nearer the middle line than normal; the inner border had an oblique direction downwards and inwards, the inferior angle being everted; this position of the scapula, which coincides with that supposed to be characteristic of serratus paralysis, obviously not being due to muscular action. He further instances the position of the scapula in the dead subject after disappearance of the rigor mortis, or still more distinctly when all the muscles of the scapula, clavicle, and upper arm have been divided. The outer end of the clavicle is lower and more forward than normal, the scapula lower and at a greater distance from the vertebral column, its inner border having an oblique direction downwards and inwards, with eversion of the inferior angle. The projection of the inferior angle of the scapula also is referred by Dr. Lewinski to the weight of the arm drawing the acromial angle of the bone forwards, and therefore tilting the lower angle backwards, a condition sometimes met with in cases of general atonicity of the muscular system, the serratus not being specially affected. From these premisses Dr. Lewinski, agreeing with Duchenne,[2] concludes that in the upright position of the body with the arms hanging down no essential indication of pure serratus paralysis is perceptible; it is only when the arms are raised that, through contraction of the deltoid, the scapula assumes a characteristic position. Of the then published cases Dr. Lewinski found only one, reported by Busch[3] (in which in the critical position of the arms no abnormality was seen), that agrees with his views of the symptoms of isolated serratus paralysis; he takes exception to all the other cases as being complicated with paralysis of other muscles.

In referring to cases reported in this country, not included in Lewinski's analysis, I find that Dr. Poore[4] observed the lower angle of the scapula of the side affected to be a trifle nearer to the middle line than that of the healthy side. Of two cases reported by Dr. Ferrier[5] one was associated with paralysis of the rhomboids; in this case the inner borders of the scapulæ were as nearly as possible equidistant from the middle line, the angle of the paralysed side being an inch lower than its fellow. In the second case,[6] one of pure serratus paralysis, the inferior angle of the scapula on the paralysed side was an inch and a half higher, and half an inch nearer to the vertebral column than that of the sound side. Dr. Ross[7] reports a case in which the inferior angle of the scapula of the paralysed side was somewhat nearer the middle line, and on a slightly higher level than the corresponding part of the opposite bone, the internal border slanting upwards and outwards. In response to Lewinski's paper Bernhardt[8] publishes three cases; the first, being associated with paralysis of the trapezius, is not relevant to the present discussion. In the second case the distance of the scapula of the paralysed side from the middle line was about the same as that of the sound side, no obvious obliquity of the inner border being observed. In the third case the inner border of the scapula of the paralysed side was less vertical than that of the sound side, and nearer to the vertebral column. Dr. Bäumler,[9] in opposition to Lewinski's views, reports a case in which the scapula of the side affected was considerably nearer to the middle line than the companion bone, its inner border being nearly parallel to the vertebral column, and its inferior angle somewhat higher than that of the other side. In a subsequent communication Dr Lewinski[10] declines to accept the last-mentioned case as one of isolated serratus paralysis. Still more recently Dr. Bäumler[11] relates a second case in which the position of the scapula agreed with that observed in his former case.

A slight consideration of the above cases will show that the action of gravity alone fails to account for the varied positions assumed by the scapula (in the critical posture) when deprived of the support of the serratus magnus. Without resorting to the hypothesis of muscular tonus there can be little doubt that muscular action plays a considerable part in the production of these displacements. Seeligmüller[12] considers that "by active voluntary contraction the antagonists of the paralysed muscles shorten themselves by each voluntary effort, and the shortening thus produced is rendered permanent because the paralysed muscles are incapable of re-extending them." The action of the three muscles principally (but, as will presently be shown, not exclusively) concerned in maintaining the scapula in position may be thus expressed. The upper portion of the trapezius and the serratus magnus represent two parallel and reciprocal forces, and the serratus and rhomboidei two continuous but opposed forces. In the passive state their combined action counterbalances the weight of the arm. If the serratus fails the equilibrium is destroyed, and the tendency of the rhomboids is to determine the scapula in the line of their contraction, upwards and inwards, the gravity of the arm aiding materially in producing this result. Dr. Ferrier's above-mentioned cases afford valuable information as to the *rôle* played by the rhomboids. In the case of isolated serratus paralysis the inferior angle of the scapula was drawn upwards and inwards; in the case in which the rhomboids were also paralysed, the inner borders of the scapulæ were equidistant from the middle line, the inferior angle being lower than that of the opposite bone. A difficulty here occurs. In Dr. Lewinski's case of multiple paralysis, in which both the serratus and rhomboids were affected, the inferior angle of the scapula was higher and nearer to the middle line than normal, the inner border slanting upwards and outwards. To elucidate this apparent contradiction, the action of another muscle must be taken into account—the teres major. This muscle being attached by one extremity to the inferior angle of the scapula, and by the other to the bicipital groove of the humerus, will, when the humerus is fixed, exercise a considerable influence in maintaining the position of the scapula; in so doing it will be assisted in a lesser degree by the teres minor and infra spinatus. When, as in Dr. Ferrier's case, the serratus and rhomboids alone are paralysed, the weight of the arm will tend to draw the acromial angle of the scapula downwards, and by rotation of the bone on its transverse axis to elevate its inferior angle, and approximate it to the vertebral column; but the teres major and allied muscles will oppose such rotation by maintaining the distance between the inferior angle of the scapula and the humerus, and, therefore, any displacement of the scapula will be without rotation, vertically downwards. In Lewinski's case, which was one of progressive muscular atrophy, it is probable that the teres major and the other scapulo-humeral muscles were also affected, and consequently the weight of the arm would exercise uncontrolled sway, and rotate the scapula, as in the dead subject. In Dr. Ferrier's other case, and in the cases of Drs. Poore and Ross, and also in my first case, all of which there is every reason to believe were cases of pure serratus paralysis, the rhomboids assisting the gravity of the arm, and by their greater strength overpowering the antagonistic action of the scapulo-humeral muscles, drew the inferior angle of the scapula upwards and inwards. When, as in Busch's case, Bernhardt's second case, and my own second case, the scapula retains its normal position, with the exception of more or less projection of the inferior angle, it appears, as stated by Dr. Lewinski, that the trapezius is competent to counterbalance all disturbing influences.

[1] Virchow's Archiv, 1878.
[2] De l'Electrisation localisée, 1872. [3] Arch. f. Klin. Chirurgie, Bd. 4.
[4] Transactions of the Clinical Society, vol. viii.
[5] THE LANCET, June 9th, 1883. [6] Ibid., Nov. 3rd, 1883.
[7] Diseases of the Nervous System, 1883.
[8] Deutsches Arch. f. Klin. Med., 1879.
[9] Ibid., 1880. [10] Virchow's Arch., 1881.
[11] Arch. f. Psychiatrie u. Nervenkrankheiten, 1882.
[12] Centralblatt für Chirurgie, 1878.

Agreeably to the above hypothesis of muscular action as a factor in destroying the equilibrium of the scapula in serratus paralysis, it is probable that the pectoralis minor, by drawing down the coracoid process, aids the gravity of the arm in causing the posterior projection of the inferior angle of the scapula.

The second controversial point—the power of elevating the arm above the horizontal plane—involves a consideration of the mechanism by which this movement is effected in the normal condition. The deltoid and the other abductors can only raise the arm to the horizontal position, the humerus then forming a right angle with the long axis of the scapula; as regards higher elevation of the arm, the scapula and humerus conjointly may be considered as one bone, further upward movement being prevented by the great tuberosity of the humerus meeting the upper edge of the glenoid cavity and the coracoid ligament. Therefore if the arm is lifted above the horizontal level, the elevation thus obtained is at the expense of a corresponding rotation of the scapula on its transverse axis, the glenoid cavity is turned upwards, the upper median angle depressed, and the lower angle moved along the thorax away from the spine. In other words, in elevating the arm above the shoulder level, the angle made by the outstretched arm with the horizon is in direct proportion to the angle made by the inner border of the scapula with the vertebral column. This movement of the scapula is the result of the combined action of the serratus magnus and the trapezius, the serratus imparting the most energy. Like the oblique portion of the scapula, the inability to lift the arm above the horizontal plane has been accepted as an essential symptom of serratus paralysis. Berger[13] in his elaborate monograph on the subject regards it as the diagnostic sign. Notwithstanding this, undoubted cases of serratus paralysis have been recorded in which the arm of the affected side could be lifted more or less above the horizontal plane. In Bäumler's case, before mentioned, the patient was able to lift the arm vertically above the head, a movement, according to the author, due to hypertrophy of the trapezius. Lewinski denies that the trapezius alone, whether hypertrophied or not, can rotate the scapula sufficiently to enable the humerus to assume the vertical position, and on this ground principally he declines to accept the case as one of isolated serratus paralysis. But if paralysis of the serratus existed at all, it is immaterial, as regards the present discussion, whether other muscles were affected or not, inasmuch as additional loss of muscular power would not increase the patient's ability to elevate the arm above the horizontal plane. Dr. Poore states that his patient could without much difficulty lift the arm above the head, and attributes the movement to the action of the trapezius and rhomboids, the contour of these muscles being visibly developed on the paralysed side only when both arms were elevated. Dr. Poore emphatically states that in his case "there can be no doubt that the serratus magnus was paralysed, and completely paralysed, and no other muscle was affected." Dr. Ross's patient could lift the arm of the side affected (right) in a vertical direction. When both arms were thus elevated the left arm was closely applied to the left ear, whilst the right arm was seven inches removed from the right ear. This has a significant bearing, indicating that the cranial and spinal attachments of the upper part of the trapezius were steadied against the arm of the sound side so as to enable that portion of the muscle to produce its maximum effect in rotating the scapula. In my third case the same relative position of the arms to the head was observed. In my first case the patient, with considerable effort, could raise the arm about 30° above the horizontal plane. Inasmuch as the trapezius and the serratus act in common in producing rotation of the scapula, there is no valid reason why the trapezius alone should not be competent to effect a certain degree of rotation, possibly less complete, and obviously less vigorous, than that due to their combined action, but still sufficient to raise the arm above the shoulder level. The *rôle* played by the trapezius in rotation of the scapula is thus described by Quain: "When the inferior part of the trapezius acts in concert with the upper two-thirds of the muscle, a rotation is produced in the scapula round a central point, in such a manner that while the whole bone, and more especially the acromion, is raised and carried towards the dorsal spines, the upper angle of the scapula is somewhat depressed and carried inwards, while the lower angle is carried outwards and elevated."[14] The elevation of the arm above the horizontal plane was doubtless thus effected in the above cited cases; it is difficult, however, to understand why this power of elevation exists in some cases and not in others. It may be that in the former there is exceptional development of the trapezius, or that the muscle in some way acquires exceptional capacity for the action in question, possibly from exceptional use. At all events, there are good anatomical and clinical grounds for asserting that such power may exist; the fact remaining that elevation of the arm above the shoulder level has been observed in several well-authenticated cases of serratus paralysis.

Since the above was written another case of serratus paralysis, corroborative of the opinion I have expressed with regard to the position of the scapula, has been reported by Mr. Clutton.[15] The whole of the right scapula was a little higher and nearer to the middle line than the left, the inferior angle being slightly raised and tilted inwards, producing obliquity of the inner border. The trapezius was not affected. The patient could very slightly raise the arm above the horizontal position.

Manchester.

[13] Lähmung des N. thoracicus longus, Breslau, 1873.
[14] Elements of Anatomy, 1882.

CASE OF

RESECTION OF SEVERAL INCHES OF SMALL INTESTINE IN THE COURSE OF ABDOMINAL SECTION FOR REMOVAL OF AN EXTRA-UTERINE PREGNANCY;

RECOVERY.

BY ANGUS MACDONALD, M.D.,
PHYSICIAN FOR, AND LECTURER ON, DISEASES OF WOMEN, ROYAL INFIRMARY, EDINBURGH.

THE following abstract of a somewhat singular case will, I hope, prove interesting to the readers of THE LANCET.

Mrs. S——, aged twenty-eight, was admitted to Ward 28 of the Royal Infirmary, Edinburgh, on May 19th, 1883. The history of her illness showed that she had menstruated for the last time in October, 1882, that subsequently symptoms of pregnancy had supervened, including swelling of, and the presence of milk in, the breasts, with morning sickness and vomiting, swelling of the abdomen, and fœtal movements. These symptoms continued till the month of April, 1883, when, after some special exertion, the patient felt much pain in the abdomen, followed by a cessation of the fœtal movements. For this pain she was treated by her medical attendant, Dr. Graham, of Currie, near Edinburgh, and obtained some relief. As, however, the patient did not improve, she was ultimately sent into hospital. She had had one child six years previously. On admission she was found to suffer from pain and distension in the abdomen, some diarrhœa and unequivocal symptoms of septic infection, including the "mown hay" odour of breath. The temperature was variable, but high at night. She reported that a week before admission some sanguineous flow was observed to issue from the vagina. On examination, evidence of considerable peritonitis, with an extra-uterine fœtation situated to the right of and posterior to the lower part of the abdomen, was unmistakably established. Inferiorly the extra-uterine tumour projected deep down into the posterior part of the pelvis. There was also intense œdema of the left leg. After the patient had been about a week in hospital there were on two occasions discharges of sanguineo-purulent matter from the bowel, but no bones could be found. After this the patient gradually but slowly improved in condition. Every effort at sitting up or rising was, however, followed by marked threatening of a recurrence of the active symptoms. The diarrhœa disappeared, and the extra-uterine mass shrunk very markedly. On October 9th, as there was no appearance of real improvement, I resolved after much reflection to endeavour to empty the sac by abdominal section.

On opening the abdomen I found that a loop of small intestine, in a very unhealthy and frangible state, formed the roof of the sac, whilst fæces communicated freely with its cavity. In endeavouring to remove the bones this piece of intestine was hopelessly injured. The fœtal sac was emptied as thoroughly as possible. On carefully examining the intestine another fæcal fistula was discovered communi-

[15] St. Thomas's Hospital Reports, vol. xii.

cating between the peritoneal cavity and the interior of the small intestine. The piece of diseased and injured small intestine, amounting in length to at least six inches, was now removed, and the edges of the free ends brought together with a continuous catgut suture, care being taken not to include any of the mucous membrane between the edges of the cut surfaces. The stitches were put in very close to one another, and took a considerable time. The gap thus made in the mesentery was then brought together by suture. The edges of the other fæcal fistula were thoroughly rawed and brought together with catgut suture. There was a considerable amount of bleeding during the section of the intestine and the sewing up of the ends and of the mesentery; but the stitching completely arrested it. The abdomen and the fœtal cavity, which extended far back posteriorly, were now carefully sponged out. A gutta-percha drainage-tube was introduced at the lower end of the abdominal wound to the bottom of the fœtal sac, and retained there by passing one of the deep sutures through its outer end. The wound was brought together in the usual way.

The patient was very ill for some days. Some fæcal matter came by the side of the drainage-tube for some time, possibly having been derived from a diverticulum in the fœtal sac, which had not been reached by the sponges. The discharge from the cavity was very copious, and produced an intensely irritated condition of the skin of the abdomen for weeks, and at one period threatened to induce opening up of the abdominal wound. But after a time improvement set in. The bowels moved from the first rather frequently, but naturally. The drainage-tube was removed on the thirteenth day, after which no fæcal discharge was seen. The patient continued to make a slow but perfect recovery. She is now perfectly well, takes food well, both solids and fluids, and has no abdominal tenderness. For upwards of a fortnight the bowels have moved only once daily, defecation having gradually come down from six to seven times a day to once daily. The patient gets up every day. There is no abdominal distension. There is no undue resistance, nor percussion dulness in any part of the abdomen. The wound has completely healed, and all irritation has disappeared from the skin of the abdomen. Examination per vaginam reveals a uterus of normal size, and movable, whilst no trace of the abdominal tumour, which projected into the pelvis right and left as well as posteriorly, can be found. The patient is at present retained in hospital, sorely against her will, as a matter of precaution on my part, that she may be spared any risks which the New Year's festivities might bring with them at her own home.[1]

The case seems to me of special interest, and to greatly encourage active treatment of extra-uterine cases by abdominal section, even when the circumstances are not particularly favourable. We know that at one time the sac communicated with the bowel cavity in this case, but it was impossible to say whether it still continued to do so when the operation was decided upon. I resolved to operate simply because I could not apparently avoid making an effort to relieve the patient from her distressing and dangerous condition. To have allowed the patient to leave the infirmary would have been to abandon her to certain death, as with every effort at motion her peritoneal symptoms threatened to break forth anew with all their original intensity. I had already allowed the patient to be nearly five months in hospital, and could hardly keep her much longer provided no active treatment was initiated. Had I known or even anticipated the serious involvement of the bowel with the fœtal sac, I fear I should not have had courage to interfere in the case. But the result of this operation will certainly embolden me in the future, and may be of service to other medical men who may find themselves in similar emergencies.

Resection of the intestine in the region of the colon and small intestine, in which the connexion with the abdominal wall is not close, and the tissues on the whole are healthy, is naturally a much less formidable operation than when it is performed for the relief of disease of the pyloric end of the stomach or the duodenum, as the opposing ends of the resection can be readily brought together without strain on the uterus. But so far as I can find, it has not been frequently had recourse to in cases of surgical emergencies. Professor Wahl of Dorpat reports two cases, one of which was performed to heal an artificial anus, the other to avoid, if possible, the return of malignant disease in the descending colon in an operation for the removal of a dermoid ovarian cyst. The former failed through the giving way of two stitches; the latter was practically a success, though the patient died two months afterwards from malignant disease. The special difference in operating between these two cases was that two rows of interrupted stitches were used in the latter and one in the former. When the two rows were used, the mucous membrane and muscular wall were secured in one row and the serous membrane in another. Now, it appears to me that it depends more upon the quantity of the stitches in a case where we have so little surface to deal with than upon the arrangement of them so far as regards the various tissue layers. In my own case I acted on a hint obtained from reading a case recorded by Sir Spencer Wells, who, having accidentally wounded the large intestine in the removal of an abdominal tumour, sewed up the gap with a continuous suture. I believe that in such a case the continuous suture secures more accurate apposition than the interrupted suture. But the stitches must be put in very near one another, and so as not to include any portion of the mucous membrane between the free edges. This case, however, proves that complete patency of the intestinal canal can be secured after six or seven inches of the small intestine have been resected, and ought to be at least a ground of encouragement to the surgeon in case of accidental injury to the bowel during operation, and probably also an inducement to undertake laparotomy for the removal of serious disease, such as extra-uterine fœtation, even though the bowel may be believed to be to a certain extent involved.

Edinburgh.

[1] The patient left the infirmary in excellent health on Jan. 7th, 1884.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem estalia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

ANEURISM OF THE LEFT COMMON CAROTID, CAUSING FATAL SPASM OF THE GLOTTIS; WITH TOTAL ABSENCE OF ANY STETHOSCOPIC SYMPTOMS; NECROPSY.

(Under the care of Dr. WADHAM.)

FOR the following notes we are indebted to Mr. Cottell, clinical clerk.

W. R——, aged thirty-three, a butler, married, was admitted at midnight on November 2nd. There was some difficulty in obtaining the previous history, but he seemed to have been a temperate man, had suffered from "inflammation of the testicles" a year ago, and about the same time his wife had noticed some spots on his body. No other history of syphilis was obtainable. His general health was good up till three weeks before admission, when on rising in the morning he felt feverish, had a slight cough, and found he had lost his voice. He went to a doctor and was treated, but his symptoms increased. Three or four days before admission he spat up with a cough one or two teaspoonfuls of dark clotted blood, and about the same time dyspnœa came on. Had very little sleep, and that only when lying on the left side. A blister was applied over the larynx, but gave no relief. Increased dyspnœa came on during the morning of the 2nd, and continued with paroxysmal aggravations up to the time of admission.

When admitted he was suffering from great dyspnœa, which was somewhat peculiar in character. It was not stridulous, but would be better described as very loud and rapid breathing, the difficulty being chiefly during expiration. He was pale, but not cyanosed, and was too distressed to talk. The difficulty of respiration was referred to the larynx, but there was no difficulty in swallowing. He was sent to bed at once, and a careful examination was made to ascertain the cause of the dyspnœa. The laryngoscope showed no laryngitis, but the proper action of the cords could not be ascertained on account of the urgent dyspnœa

and the irritability of the pharynx. Examination of the chest showed slightly deficient expansion on the left side, and very slight recession of the lower intercostal spaces. There was no abnormal dulness on percussion. Air entered freely and equally; sibilant rhonchi were heard over both lungs. Auscultation was difficult on account of the noisy respiration. For the same reason it was difficult to ascertain the condition of the heart. No bruit could be heard. The radial pulses were equal. No abnormality in the clavicular or supra-sternal regions. Urine was drawn off, and found to contain about one-twelfth of albumen. With these symptoms it was considered that tracheotomy would give no relief. The patient was ordered a purge, some lobelia and ether mixture to be taken every two hours, and the constant inhalation of benzoin. Two or three hours later the dyspnœa increased. Chloroform was administered freely, but with no relief, and after a short time the paroxysm abated of itself. The dyspnœa continued throughout the night. He took support fairly well. At 1 P.M. on the following day he was seen by Dr. Wadham; he was then dusky, and the breathing had become rather more difficult again. He was ordered to suck ice preparatory to another examination of the larynx being attempted. Directly after being seen a severe paroxysm came on; he tossed about in bed, became cyanosed, and had a slight convulsion.

Tracheotomy was performed at once, although without much hope of giving relief. A free opening was made into the trachea as low down as the upper margin of the sternum. Artificial respiration was then performed, but in a few minutes voluntary respiration ceased entirely, and the pulse at the wrist could no longer be felt. On introducing the finger through the wound no obstruction was met with, but the trachea seemed pushed over slightly to the right side. Death took place fourteen hours after admission.

Necropsy.—On removing the sternum a distinct tumour was felt in the middle line, just above the heart. It was overlapped by the anterior margins of the lungs, and was about the size of a small orange. On dissection it was found to be an aneurism growing from the root of the left common carotid; it was filled with recent blood-clot. Its walls were about as thick as those of the aorta, and were lined to the depth of a quarter of an inch with laminated clot. The trachea just above its bifurcation was considerably narrowed by the pressure of this tumour, its anterior wall was also much thinned, and through an opening as large as a small pea, which communicated with the sac, a small black clot projected. The arch of the aorta in its first part was atheromatous, but was quite separate from the aneurismal sac. The left pneumogastric nerve was firmly embedded in the wall of the sac, and was distinctly flattened. The left recurrent nerve was also implicated, being pressed between the sac and the trachea. The nerves on the right side were quite free.

ROYAL BERKSHIRE HOSPITAL, READING.

CASE OF COLLOID OF PERITONEUM; NECROPSY.

(Under the care of Dr. ED. WELLS, M.A. Oxon.)

FOR the following notes we are indebted to Mr. Francis H. Furnivall, house-surgeon:—

S. C.——, labourer, age fifty-three, was admitted on Aug. 23rd, 1883. He gave the following history:—Eight years before he had had an attack of pleurisy, and for some time had suffered from stricture of the urethra. Last March he first noticed that his abdomen was swollen, this swelling steadily increased, with little or no pain, and without jaundice. There was no history of syphilis nor of any suppuration. The patient denied excessive alcoholism. There had been increasing dyspnœa, but this had at no time been intense. The patient had been on the tramp for some time, sleeping at night under hedges and in outhouses.

On admission his state was as follows:—An unhealthy-looking emaciated man, looks older than his alleged age; complains of swelling in the abdomen and shortness of breath. Appetite fair; tongue coated with white fur; bowels relaxed; pulse 76; respiration 20; temperature normal. Heart normal. Lungs, general emphysema, sonorous rhonchi to be heard over both. Expansion on the left side somewhat deficient. Left base somewhat duller than right. The abdomen is much distended, no fluctuation, nor thrill. Parietes œdematous. A fairly consistent irregular growth is felt through the abdominal walls, and an ill-defined edge is to be felt running transversely across the right side of the abdomen about two inches and a half below the umbilicus. There is a lack of resonance over the whole abdomen. Urine cloudy; sp. gr. 1015, acid, no albumen. There is no œdema of legs, and little or no pain.

Sept. 1st.—Condition much the same; abdominal swelling somewhat larger.—15th: Patient weaker and obviously losing flesh. Tongue foul, dry, and brown; abdominal swelling steadily increasing.

Oct. 2nd.—Loss of strength continues, with emaciation and increased abdominal distension; appetite, which has been fair, is now very poor. Bowels act regularly each day; motions liquid and dark in colour.—10th: Ravenously hungry.—25th: Appetite has entirely gone since last note and patient has been getting steadily weaker; his whole aspect is strongly suggestive of malignant abdominal disease. The abdomen is considerably more swollen; the parietes are œdematous and the superficial veins dilated; no fluctuation can be made out. Around the umbilicus a hard nodular growth can be felt. At about four inches above the umbilicus a crescentic line with its convexity upwards limits the area of increased resistance. Whilst below the resistance is indefinitely limited by a line passing from three inches above the anterior superior spine of the right ilium to the junction of the outer and middle thirds of Poupart's ligament on the opposite side.

Nov. 4th.—Much distension of stomach accompanied by frequent eructation.—6th: Insomnolency; much pain about epigastrium, which was relieved by one-sixth of a grain of morphia hypodermically.—7th: A discrete vesicular eruption has appeared over abdomen, which is somewhat more distended.—11th: Patient, who has been getting steadily weaker, after passing a slight motion suddenly became comatose and died.

Necropsy, eighteen hours after death.—Rigor mortis well marked; body extremely emaciated, little or no subcutaneous fat remaining; abdomen enormously distended, the skin over it slightly œdematous and covered with furuncular spots. On opening the body a small quantity of straw-coloured fluid escaped from the peritoneal cavity. The abdominal walls being turned aside a growth was seen to extend over the whole area exposed, completely hiding from view the intestines and other viscera. The growth was straw-coloured, irregular in outline, and of the consistency of adipose tissue; towards the pelvic region it became more gelatiniform in character. It was moulded over the intestines, but could be lifted from them without tearing. No trace of normal omentum was visible, and as far as could be seen the greater part of the peritoneal surface was implicated. When the thoracic and abdominal viscera had been removed, it became apparent that not only was the parietal peritoneum involved in places, but that the whole intestinal tract was embedded in growth sprouting from the omentum. This was especially noticeable in the pelvis, where it seemed for the most part to arise from the peritoneal lining of that cavity. The small intestine was normal in calibre, and contained a small amount of chylous fluid; but the colon was collapsed to the size of one's little finger, and in places was completely enveloped by the new growth. The diaphragm was covered on its lower surface by the new growth to the depth of more than an inch, and was infiltrated on the right side, so that its pleural surface in this part presented a rough and granular appearance; it was not adherent to the viscera below. The liver was apparently normal excepting that in one or two places its peritoneal covering was implicated. The gall-bladder was distended. The kidneys were small, capsule easily detached. The spleen, embedded in the new growth, appeared normal. The lungs and pleural cavities: The right pleural cavity was full of straw-coloured serous fluid; the right lung was collapsed with the exception of the upper lobe; on the left side were numerous long-standing adhesions over the whole pleural surface; the left lung was healthy with the exception of a little emphysema. The pericardium contained a few adhesions and traces of old pericarditis. The heart was small and flabby; its valves competent.

Remarks by Dr. WELLS.—This case of colloid cancer is chiefly remarkable for its enormous size and extent. In other respects it seems to conform to the usual appearances of this form of malignant growth.

AT the annual festival of the French Hospital and Dispensary, Leicester Square, held on the 2nd inst., subscriptions amounting to £2000 were announced.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Sporadic Cretinism.—Fibroid Disease of the Heart.—Hard Carcinoma of Œsophagus.—Growth from the Bladder.—Calculus impacted in a Sac of the Bladder.—Black Tongue.

A MEETING of this Society was held on Tuesday last, Mr. J. Whitaker Hulke, F.R.S., President, in the chair. Unquestionably the chief interest of the evening was centred in the communications read by Dr. Barlow and Messrs. Bowlby and Sutton, though Sir Henry Thompson's second case excited a little warmth of discussion.

Mr. BOWLBY showed four specimens of Sporadic Cretinism. The first was a very large male child born at full term, but lived only one hour. The head was large, well shaped, and the cartilaginous base was normal; the back of the neck was occupied with masses of subcutaneous fat; the skin was œdematous and semi-translucent; the thyroid gland was absent; the upper and lower extremities were very short, and the epiphyses large in proportion to the shafts, and readily separated from the diaphyses. Under the periosteum of many of the long bones was a soft white material of undetermined nature; the ribs presented an oblique fissure at their external ends. The second case was a fœtus born at term, the body being of normal size. The head was of natural shape, and the cartilaginous base of the skull was natural; the extremities were extremely shortened; the epiphyses were normal and the shafts exceedingly short; there was no enlargement at the epiphysial lines, and no attempt at ossification in any of the epiphyses; the ribs were short, and the anterior extremities enlarged and nodular. The third case was a fœtus measuring twelve inches. The head was broadly pyriform and enlarged in their transverse and vertical diameters; the frontal, parietal, and occipital bones were represented by a single continuous case of bone widely open in front and above, and the other cranial bones were depressed and of a light, dry, and porous nature; the ribs were very thick; the extremities were stunted, all the bones of them, including the phalanges, were thick, heavy, and more or less bowed; the epiphyses were large in proportion to the shafts; there was no swelling at the epiphysial lines. In the fourth case the head was natural and the palate cleft; the forearms were very short and curved; the lower extremities were also very short and somewhat curved. The microscopical appearances in all the cases were very similar. In the epiphysial cartilages the cells were not arranged in rows at the junction of the epiphysis with the shaft; there was no evidence of ossification at this point. Between the bony part of the shaft and the cartilage of the epiphysis was a well-marked layer of connective tissue continuous with the periosteum. This condition was present in the bones examined. Mr. Bowlby's specimens being all from a museum, he was unable to give any clinical details. Briefly reviewing his cases and comparing them with those recorded by Dr. Hilton Fagge, Dr. Barlow, Mr. Shattock, and others, he noted that in none of his cases was there any premature synostosis of the basilar process with the sphenoid bones. In his first case the thyroid gland was absent, and there was a great excess of adipose tissue at the back of the neck, though there were no definite fatty tumours. The other cases afforded no evidence on either of these points. The chief interest in his specimens, however, lay in the extreme shortness of the bones of the extremities, and this he attributed to the ingrowth of connective tissue at the junction of the epiphysis with the diaphysis. As to the proximate cause of this, after referring to the admitted resemblance between cretinism and myxœdema, he suggested that in sporadic cretinism, and perhaps also in endemic, there might be a tendency in the connective tissue of the periosteum to over growth, and proceeded to point out that it had been noticed that after the removal of the thyroid gland in young people, growth had been arrested, and a condition akin to myxœdema produced. The curvature of the bones he attributed to the very early stage at which the interference with growth took place; the earlier this commenced the more curved the bones, and *vice versâ*.

Dr. BARLOW showed a specimen closely resembling the one exhibited by him during the debate on rickets. In the long bones there was seen the defective formation of columns in the primordial cartilage, in consequence of which the process of ossification was rendered abnormal. The growth of the bones was arrested in length. The bones formed from membrane were well developed. The epiphyses of the long bones were relatively large; there was no proliferation of cartilage along the line of ossification as in rickets; along the upper line of ossification was a fibrous layer spreading in from the periosteum. There was no true beading of the ribs as in rickets; but there were enlargements due to an investing sheath of bone round the end of the costal cartilage. There was premature synostosis between the basi-occipital, basi-sphenoidal, and pre-sphenoidal bones, and the cartilaginous part of the occipital bone was stunted; the membranous bones of the skull were well developed. The cerebellar fossæ were practically undeveloped, and the growth of the cerebellum was therefore much arrested. On the under surface of the brain the under surface of the temporo-sphenoidal, temporo occipital, and uncinate convolutions was very deeply cleft by a fissure extending upwards and forwards into the temporo-sphenoidal lobe to near the posterior limb of the fissure of Sylvius; the fissure was symmetrical on the two sides. With regard to the viscera, the heart showed funnel-shaped aortic and pulmonary orifices, a patent foramen ovale, and an incomplete septum ventriculorum; there was no mitral orifice. The thyroid gland was normal, and there were no separate fat masses in the neck. He (Dr. Barlow) did not deny the existence of fœtal rickets, but his contention was that these cases had nothing to do with rickets. He had seen instances of premature union of the frontal and parietal bones with the occiput in place of the more common form. In the cases published by Dr. Fagge the limbs had not been so extremely stunted as in his own cases, and as to the absence of the thyroid gland, the case he now showed proved that it might be present and normal. In one of Dr. Fagge's cases after death a small goitre had been found where the thyroid had been supposed to be absent. Fat masses in the neck were not constant, though there was often an increase of subcutaneous fat. The histology of the long bones afforded scope for further investigation.

Mr. BLAND SUTTON read notes of a case of Fœtal Cretin'sm. One half of the body had been dissected to display the skeleton; the remaining half was left intact to show the external characters of the fœtus. Concerning the exterior, the noteworthy points were its extraordinary size, the very large head, and the thick, but short, stunted limbs. It was a female fœtus and measured from the crown of the head to the sole of the foot twenty inches; of this six inches and a half represented the head, nine inches the trunk from the foramen magnum to tip of coccyx, and only four inches and a half the legs. In an ordinary fœtus at birth the head should measure one-fourth of the whole body, whereas in this specimen the head equalled more than one-third of the body. The arms should reach to near the middle of the hip, but here they were on a level with the umbilicus. The skin of the limbs was wrinkled in transverse folds, and there was an excessive quantity of fat in the subcutaneous tissue all over the limbs, trunk, and face. The only visceral lesion noted was enlargement of the thyroid gland to twice its usual size. The base of the skull was very short, due to synostosis of the basilar suture. The foramen magnum was very narrow, and in shape elliptical with its major axis transverse. The squamous portion of the occipital bone bulged backwards at the seat of the torcular Herophili, so that it presented on the inner aspect a deep cup-shaped depression where the four centres for this portion of the occipital bone become confluent. The floor of the cranium was divided into shallow fossæ by strong ribs of dense bone. All that portion of the skull which developed from membrane was enormously exaggerated, the bones being extremely thin and deficient, the chief part of the vertex being formed of stout membrane as in hydrocephalic infants. The ventricles of the brain were greatly distended with fluid. The ribs were broad, the intercostal spaces narrow, so that the capacity of the thorax was small; the beading of the rib shafts at their junction with the costal cartilages was obvious. The clavicle was rather long but not otherwise deformed. The scapulæ were thick and stunted, the bones of the arms presented short thick shafts, with very large terminal cartilages. The ossa innominata were thick and stunted, and the bones of the legs presented similar characters to those in the upper limbs. There was no earthy spot for the condyles of the femur. In sections carried through the junctions of the shafts of the long bones

with their terminal cartilages the following changes were seen:—1. There was absence of the familiar rows of cells so constantly seen where hyaline cartilage is undergoing conversion into bone. 2. Between the bone shaft and the cartilage cap a line of fibrous tissue was seen continuous with the periosteum. The condition of the skeleton might be summed up thus:—There was an overgrowth of membrane bone, with lack of metamorphosis of cartilage. It seemed as though membrane and cartilage, instead of harmoniously working together to form bone, had broken alliance with each other and pursued their own course to each other's detriment.—Mr. HULKE said he was greatly interested in this group of cases.—Dr. GOODHART showed photographs of a case of sporadic cretinism in a girl aged eleven years.—Dr. MAHOMED spoke of the case of a girl aged fourteen, who had stunted and thick limbs with somewhat enlarged epiphyses. She was, however, a sharp intelligent girl. Mention was also made of two children of similar appearance and characters.

Dr. HALE WHITE read a paper on Fibroid Disease of the Heart, in which he noticed the fact that it was just ten years since Dr. Hilton Fagge read his exhaustive paper on this subject. During this period nine cases had occurred at Guy's Hospital, in which the only cause for sudden death was this condition of the heart. A typical case of the disease was related. A man fell down suddenly in the Borough, and when admitted to Guy's the only cause for death was fibroid disease of the heart, which was probably syphilitic, as other evidences of this disease were present. Sections of the heart from this case were shown under the microscope. The great importance of fibroid disease of the heart as a cause for unexpected sudden death was pointed out, and inasmuch as nine cases had happened at Guy's Hospital, it might be taken that Dr. Fagge's prophecy that this would be found to be a common cause of sudden death was proved. With regard to syphilis, this was present in four out of the nine cases, so that sudden death must be looked upon as a complication of that disease. In the remaining five cases there was nothing to show what was the cause of the fibroid disease, nor were there symptoms to point to it during life; in fact, in most of the cases it was definitely stated that at the time of death the patients were in the best of health.

Mr. BENTON read notes of a case of Carcinoma of the Œsophagus. The man had been of intemperate habits, and fourteen months before death the constriction of the food passage was diagnosed, both from the symptoms and auscultatory signs. There was a complete absence of thirst.—Mr. BUTLIN had examined the specimen, and found it one of hard cancer, or spheroidal-celled carcinoma. The new growth had infiltrated the œsophageal wall, just as was seen in growths of the bladder or stomach. There was less ulceration than in ordinary epithelioma. The progress had been much quicker, and the pericardium was involved with nodular growths.—Mr. CLEMENT LUCAS asked what was the cause of death, and whether any secondary manifestations had been found.—Mr. BOWLBY mentioned a case in which the patient had died of septicæmia after gastrostomy, in which foul-smelling sloughs had been detected in the neighbourhood of the cancerous disease.—Mr. BUTLIN, in reply, said there was secondary enlargement of a number of glands, and the patient died from inanition; there was no sign of septic poisoning either during life or after death.

Sir HENRY THOMPSON showed a typical specimen of Villous Growth of the Bladder which he had recently removed. This was the sixteenth case within the last two years which he had operated upon. He thought we might generalise a little more now than was formerly possible. Tumours of the bladder were much more common than was till lately believed to be the case. In the last case he had removed two masses by two introductions of the forceps from the bladder of a man aged forty-four, who had had hæmaturia for six years before the disease could be said to be of serious dimensions. After the operation the patient was enabled to walk, and improved greatly; but recurrence might take place. Out of the sixteen cases, ten had been growths of a villous nature; this villosity was an accidental circumstance, and possibly a source of local irritation could be found in many cases. The tissues of the growth were homologous with the tissues of the bladder. In two cases the tumour was epitheliomatous, and in others was of doubtful nature. Sir Henry did not operate on cases where the tumours grew into the wall of the bladder so as to infiltrate it. There had been no recurrence in his two earliest cases, but in others which had recurred he had operated again with success.—Mr. BUTLIN said, with regard to the question of recurrence, he knew of the case of a lady aged twenty who had hæmaturia, in whom a papillary growth with well-organised base of fibrous tissue was removed from the bladder. The growth had apparently recurred in the form of sessile growths of very vascular nature, which microscopically turned out to be a round-celled sarcoma.—Mr. HULKE had lately had three cases under his care. It was impossible in the first to attempt removal, owing to the infiltration of the walls of the viscus by the epithelioma. The second and third examples were cases of more or less extensive papilloma, and here the whole of the diseased tissues could not be removed; but life was not shortened by the operation, and much relief was obtained.

Sir HENRY THOMPSON also showed a Calculus taken from a sacculus in the bladder of a female aged forty-two, who had been treated for cystitis, from which she had suffered for more than a year. On palpation after dilatation of the urethra, an elevation like an acorn, firm and smooth, sprang from the base of the bladder, covered by mucous membrane. He endeavoured to inspect it, and found no entrance to a sac, but discovered that it was a stone, and then enucleated it with a curette. It was difficult to imagine how it got in its situation. Cases of sacculated calculus were very rare.—Mr. BLACK narrated a case of calculus impacted in one ureter.—Mr. THOMAS SMITH had described, in the Transactions of the Pathological Society, a case of stone in each ureter.—Mr. CLEMENT LUCAS spoke of a similar case recorded by Mr. Gay, and of others in the museum of Guy's Hospital.—Sir HENRY THOMPSON, in reply, rejected the notion that any of his four cases were examples of calculus impacted in the ureter. He would expect dilatation of the ureter and hydronephrosis to follow such impaction.—Mr. THOMAS SMITH explained that in the case mentioned by him, though the calculi were of the size of a walnut there was no hydronephrosis, and although the calculi were impacted the ureters were not wholly blocked.—Mr. BLACK also said in his instance there was no hydronephrosis.

Mr. G. STOKER showed a living specimen of "Black Tongue." This was more known to French authors, St. Germain and others. His case had lasted for three years. Scrapings from the tongue, showing greatly hypertrophied epithelial fringes from the fungiform papillæ, were shown under the microscope. The cells showed a diffuse staining. The man was aged seventy.

Dr. Hale White placed on the table a specimen of Tumour of the Bladder. Dr. Lediard showed, as a card specimen, Epithelioma of the Foot. Mr. Hulke exhibited two drawings of Rodent Cancer of the Face. Mr. Bowlby brought forward a Dermoid Cyst of the Finger. Mr. Walsham's card specimen, shown at a previous meeting, of an unusual sized Calculus in a boy, was omitted by an oversight.

MEDICAL OFFICERS OF HEALTH SOCIETY.

A MEETING of this Society was held at 1, Adam-street, Adelphi, on Friday, January 18th, Dr. T. O. Dudfield, President, in the chair. Dr. WALFORD read a paper, entitled "A Nine Years' Stewardship as Medical Officer of Health at King's Lynn, its difficulties, and the results especially with reference to the improvement of the dwellings of the poor." He said that when he took office in 1873 the population of the town was about 17,000; that the corporation allowed a fee of 2*s.* 6*d.* to the parish medical officer for every report made to him of cases of infectious disease or any other matter requiring his attention. That through the ladies of the district visiting society, the police, the assistance of brother medical men, and in various other ways, he also received much valuable information, so that it could very rarely happen that anything demanding his attention could escape notice. Accompanied by the borough surveyor, he also made at frequent intervals regular inspections of his district. Lynn bears much similarity to the large towns of this country in having the same vices, the same wretched slums, squalid misery, poverty, and overcrowding, and a year or so before Dr. Walford took office there was a somewhat similar agitation to that in London at the present time concerning the dwellings and sanitary condition of the poor. Dr. Walford found that his sanitary authority was always ready to enforce the various Acts relating to the housing of the poor, such as have not generally been made use of—in fact, he was exceptionally

favourably circumstanced in this respect. He soon found he had two classes of the poor to deal with, those who would help themselves and those who would not; the former took every advantage of improvements, and being naturally more thrifty and able to pay a better rent than their improvident neighbours, would try in every way to raise themselves. With regard to the other class, all improvements of every kind were completely thrown away upon them. Dr. Walford remembered many instances in which such people having a good house to start with, or having a dilapidated house thoroughly repaired, very soon wrecked it by putting every piece of wood they could detach into the fire, and they more often than not paid no rent. As Lynn is a manufacturing and seaport town, there is always plenty of work, and yet rents are low, and Dr. Walford considered that the wretched condition of the poor was mainly, if not entirely, due to their own improvidence. With regard to overcrowding, with a large number of the poor it was merely a matter of wages in proportion to rent. Given a poor man, therefore, with a large family, out of regular work or in indifferent health, he could only obtain such accommodation as his wages would afford-which was often certainly insufficient for sanitary purposes; but still, as no one could compel him to go into the work, house, or drive him into the street, or give him a better house, the only thing to do was to leave him where he was. As to overcrowding from the introduction of lodgers into a house or room, it was most difficult, if not impossible, to find out how many would come into a house or room at night for a shakedown, and though one might sometimes get a suspicious tenant ejected by the landlord, the result was probably only to produce overcrowding elsewhere. As a result, Dr. Walford considers that the existing Acts are sufficient to deal with the matter as far as it can be dealt with, that very great improvement was made during his term of office in the dwellings of the better class of poor, while, as to the others, after years of work, he was obliged to confess that very little, if any, improvement was effected, and he thought that nothing could be done until a policeman stood at the door of each hovel to look after the behaviour of its inmates, and to see that no one entered after the registered number of occupants had passed in. Dr. Walford also spoke of the results of notification of infectious diseases. When he began his duties, which was shortly after a severe epidemic of scarlet fever, he found people willing to adopt every sanitary precaution, so that for some years scarlet fever was hardly known in Lynn; but after seven or eight years this very immunity from the disease engendered such an indifference to it, that he had much greater difficulty in enforcing the proper measures, and as a result the mortality was high.—In the discussion which followed, the President, Drs. Moore, Armistead, Dixon, Corner, and Waterworth, and Messrs. Lovett and Wynter Blyth, took part.

Reviews and Notices of Books.

Elements of Human Physiology. By HENRY POWER, M.B.Lond., F.R.C.S., Ophthalmic Surgeon to St. Bartholomew's Hospital, London; Examiner in the Board of Anatomy and Physiology, Royal College of Surgeons. Illustrated with 47 Engravings. Pp. 389. London, Paris, and New York: Cassell and Company. 1884.

THE general excellence of the series of students' manuals published by Messrs. Cassell and Co. is fully maintained in the present volume. The author has brought to the elucidation of his subject the knowledge gained by many years of teaching and examining, and has communicated his thoughts in easy, clear, and forcible language, so that the work is entirely brought within the compass of every student. Mr. Power has purposely refrained from giving a detailed account of histology, clinical chemistry, physical physiology, and comparative physiology, since these collateral branches of science are treated in separate volumes by distinguished writers.

The work is divided into sixteen chapters, each of which deals with an important section of human physiology. Those on the nervous system and the senses strike us as being singularly well written, the exposition being lucid and comprehensive; in fact we do not remember having seen these difficult subjects handled with greater precision or with a fuller measure of success. The latest accepted data have been adopted, whilst mere speculative opinion has been judiciously excluded. The student will rise from a perusal of the manual conscious of having gained some definite information, and without feeling his mind clouded by difficult terms and deftly propounded conundrums.

To those preparing for the primary examination of the College of Surgeons the work will be sure to become a great favourite. We confidently expect to find it established as a highly accredited exponent of physiological science. It supplies a want that has long been felt.

The Dissector's Manual. By W. BRUCE-CLARKE, M.A., M.D., M.B., F.R.C.S., and CHARLES BARRETT LOCKWOOD, F.R.C.S. London: Cassell and Co., Limited. 1883.

MESSRS. CASSELL AND CO. have added to their series for students of medicine a manual on dissections by Messrs. Bruce-Clarke and Lockwood, the Demonstrators of Anatomy at St. Bartholomew's Hospital. It contains 390 pages and 49 engravings, most of the latter being original. Considering the various text-books on dissections which are already in daily use in our anatomical schools, we hardly expected the appearance of another volume on the same or similar lines, and we cannot say that a perusal of the new work has persuaded us that it supplies any real want of the medical student. It is not so precise and brief as Cleland, so exhaustive as Ellis, so graphic in style and rich in illustration as Holden, or so clear and well suited for junior students as Heath. The first and second chapters are unnecessary, if the work is used in any well-organised anatomical school, and the details on the preparation of the subject, whilst well known to teachers, are quite superfluous for students, who have only to dissect the prepared and injected body. The language is not that which we should have expected from teachers in a school where the graces of style of Paget and Holden must still be a prized tradition. "He may go into the dissecting-room, where he will be taught to *cut the body up*," and "then the structure must be *skinned of its connective tissue*," and many other similarly crude expressions, should be altered in another edition.

The dissections in the latter part of the book are carefully arranged, and, with the landmarks, form its best feature. The chapter on dissecting questions might be omitted with advantage, and many of the diagrams have but little artistic merit or anatomical accuracy. The manual, in spite of some advantages, such as the omission of all histological details, will require many alterations before it can in any way rival those with which the medical student is already familiar.

Ventnor and the Undercliff in Chronic Pulmonary Disease. By JAMES M. WILLIAMSON, M.D. Edin., Member of the Clinical Society of London, Surgeon and formerly Resident Medical Officer to the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor. Second Edition. London: Baillière, Tindall, and Cox.

DR. WILLIAMSON'S book has reached a second edition, and deservedly so. There is no more important or subtle influence in the treatment of disease generally, or of chest disease in particular, than that of climate, and the practitioner whose special experience enables him to give new illustrations of the fitness or the unfitness of a particular climate in diseases of common frequency and of uncommon potency is indeed a most useful medical writer. The experience of Dr. Williamson during his residence in the Ventnor Hospital, and since then in private practice, eminently enables him to speak with authority, and we must add with what seems judicial impartiality, for he does not hesitate to point out that the climate of the Undercliff is in his judgment even injurious in certain classes of phthisis, notably in cases

of the hæmorrhagic variety—to which, in relation to meteorology and atmospheric pressure, Dr. Williamson has directed special attention,—and in certain cases of fibroid phthisis. The author says, indeed, that later experience has led him to modify an opinion he expressed in the first edition, that cases of fibroid phthisis do not undergo very great amelioration in the climate of the Undercliff. He thinks that, excluding cases where the cough is hard and irritable and the expectoration scanty, patients will find in Ventnor safe winter quarters, and be assisted to hold their own. For the cases of catarrhal or tubercular phthisis that have not reached the febrile stage he holds that the Undercliff is a suitable resort, affording in its terraces &c. a climatic variation adapted to different cases. Readers of this book will no doubt have a preference for certain chapters, but to our thinking those are the most valuable which summarise the medical results of the large number of cases on which the main conclusions of the author are based. The diseases specially regarded are phthisis, asthma, chronic bronchitis and emphysema, chronic pleurisy and empyema. Not the least practical chapter is the ninth, on certain incidental and other conditions, attention to which often makes the difference between a successful and an ineffectual practitioner.

Transactions of the Obstetrical Society, 1883.

THIS volume contains papers of great value, and some marked by originality and careful research. We would direct special attention to two papers by Dr. Champneys on certain forms of deformed pelvis. That on the Obliquely Contracted Pelvis of a Child with Left Sacro-iliac Synostosis, together with remarks on the Pelvis of Naegelé, consists of a description of the obliquely contracted pelvis and the skeleton of the trunk of a child with kyphosis at the lower thoracic vertebræ, together with a discussion of the forces which took part in the production of the deformity. In the second paper, after describing a kyphotic pelvis, the author discusses the views of Breisky with reference to the inclination of the pelvis and the sitting posture in cases of kyphosis, and the mode of production of the pelvic distortion. Both papers are examples of excellent work and models of good writing. In a valuable paper, the President, Dr. Matthews Duncan, has collected all known (many being previously unpublished) cases of puerperal diabetes, in all twenty-two. He found the condition one of extreme gravity both to mother and fœtus. We have already noticed Dr. J. Williams's paper on the Natural History of Dysmenorrhœa. Dr. Herman contributes a paper on the Relation between Backward Displacements of the Uterus and Painful Menstruation. He discusses the subject from an anatomical as well as a clinical point of view, and finds no evidence in favour of retroflexion being the cause of narrowing of the uterine canal and obstruction to the menstrual flow, or in support of the view that it causes strangulation of the uterus and congestion of the organ; but he concludes "that while dysmenorrhœa accompanying retroflexion is often—it may be generally—dependent upon other concomitant conditions, yet there are cases in which it is simply the result of the displacement, and that in such dysmenorrhœa is probably entirely due, not to flexion, but to the veins of the broad ligaments being compressed against the utero-sacral ligaments." Dr. Herman's paper contains original matter of the greatest importance to the elucidation of retroflexion. There was no opposition to the views of the author, no rebutting evidence offered. The paper deserves careful study, especially by those about to treat retroflexion by mechanical means. Mr. Knowsley Thornton contributes a very interesting case of Extra-uterine Fœtation treated by Abdominal Section; Mr. Alban Doran one on Interstitial or Tubular Gestation; and Dr. Chahbazian a valuable paper on the Treatment of Post-partum Hæmorrhage by Hypodermic Injection of Ergotine.

THE ARMY MEDICAL SCHOOL AT NETLEY.

THE winter session of the Army Medical School was brought to a close on Monday, the 4th inst., when the names of the surgeons on probation who had been recommended for commissions in H.M.'s Army and Indian Medical Services were announced, and the prizes awarded to those who had been successful at the competitive examinations in the respective departments of study were distributed by H.S.H. Prince Edward of Saxe-Weimar, the General commanding the southern district. The meeting took place in the lecture-room of the Royal Victoria Hospital at Netley, and a large number of visitors, including many ladies, were present on the occasion. The Prince was accompanied by Princess Edward of Saxe-Weimar and various members of his staff, including Colonel Lascelles, the assistant quartermaster-general, and Surgeon-General J. Lamprey, principal medical officer of the southern district, together with Captain Lord A. C. Seymour and Lieutenant W. H. R. Darby, his aides-de-camp. There were also present the Director-General of the Army Medical Department and Mrs. Crawford, Sir Charles Pearson, K.C.M.G., commandant of the Royal Victoria Hospital, and Lady Pearson, the Hon. Mrs. Eliot Yorke, Surgeon-General Murray, M.D., principal medical officer of Netley, the Professor of the Army Medical School, the officers of the hospital and their ladies, with numerous visitors. Both the area from which the prizes were distributed and the probationers' benches were crowded, and the varied colours of the dresses of the ladies mingled with the military uniforms gave the assemblage a bright and animated aspect. We append elsewhere lists of the surgeons of the two services who were declared fit to receive commissions, as well as the names of the successful competitors who received prizes on the occasion.

The Prince, after he had handed the prizes, delivered an address, in which he took a general survey of the objects of the School, and of the part it had taken in preparing the junior medical officers for discharging the special duties which devolved on them in their military career. He expressed his conviction that the officers and men of all ranks of the army had largely benefited by the instruction which had thus been disseminated. His Serene Highness finally addressed some special remarks to the surgeons who were about to be commissioned on the importance of their position and functions in the Army and in India, and concluded by some friendly words which were well calculated to encourage them on commencing their career in the military service.

The Director-General, Dr. Crawford, also addressed a few observations to the novitiates of his department, who, he said, were doubly honoured on the present occasion; first, by the kindness of His Serene Highness in coming all the way from Portsmouth to give them the prizes and address them as he had done, and, secondly, by the presence of so many ladies. He told them, as one result of his observations during forty years' service in the Army Medical Department, that if, in their future professional practice, they succeeded in gaining the good opinion of the ladies and of the soldiers' wives, and in securing their confidence as to their professional ability and the treatment of their families, they would have little to fear in any other quarter. The Director-General observed that it was very important for general officers, and for the combatant officers of the army at large, to take an interest in the work and professional reputation of the Medical Department of the Army; that such visits as H.S.H. the General commanding the southern district and other military officers had paid them on the present occasion, and that other distinguished officers had previously paid on similar occasions in connexion with the Army Medical School, were highly encouraging and beneficial to the Medical Service; and he desired to express his own acknowledgments, and those of all the officers of the department over which he presided. Before sitting down, Dr. Crawford said he had noticed that no special prize had been given in the Pathological department of the School, and he added that he should have much pleasure in following the example of Sir Joseph Fayrer on a previous occasion by presenting one to Mr. Bradshaw, who stood highest on the list in that branch of study.

At the close of the proceedings, the officers of the Army Medical Department at Netley entertained Prince Edward, the ladies, and other visitors at luncheon in the spacious mess-room of the officers' quarters.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 9, 1884.

As we intimated at the end of last session, it is the wish and intention of Government to introduce the Medical Bill early and to dispose of it. No doubt the business of Parliament just now is multiform and onerous. But the Medical Bill comes well within its highest functions. Parliament cannot escape from the duty of recasting the medical licensing machinery of the country and the Medical Council by which it is supposed to be controlled and supervised. The machinery is costly, competitive, and discredited. It has been discredited by the profession, by successive Governments, and lastly by a Royal Commission of the highest authority. The only conceivable opposition to the effectual reform of the existing state of things is that of certain Bodies which are supposed to be more interested in maintaining the *status quo* than in destroying it. There was never a piece of reform to be done that had not such opposition to encounter. All that is wanted is that the responsible Ministers elucidate the exact state of the case, and, if necessary, the exact nature of the opposition, and the common sense of Parliament and of both parties will carry the reform in an hour. The exact nature of the opposition would be one of the most powerful arguments in favour of the reform. It would be curious indeed if a strong Government, acting intelligently and indeed conservatively, on the lines of the recommendation of a Royal Commission, and backed by practically the whole medical profession, should be baulked by a few Bodies which find their interest in the existing state of things—half diplomas, unequal examinations, high qualifications practically purchasable with money, and a profession excluded from the Council which it maintains.

We say the nature of the opposition must be elucidated—*if necessary*. We hope it will not be necessary. The differences between the Scotch Universities and the Corporations ought to admit of easy adjustment. Scotland has the privilege of educating and examining a large proportion of English practitioners. She boasts that she does the work well. It is the more reasonable that she should hail a measure which provides guarantees of fairness and good work in examinations either for mere licences or for higher qualifications. We see with satisfaction that Sir LYON PLAYFAIR has been urging union and conciliation on the Scotch medical authorities. We earnestly hope he has succeeded. But if not, that is no reason why this great reform should be longer deferred. The Irish Bodies have some amendments on last year's Bill to ask—some of them not unreasonable in their nature, and which ought to be accepted; amongst others we may specify the granting of a seat in the Divisional Boards to the direct representative.

In reintroducing the Bill of last year there is one point on which we venture to say that we feel very strongly, and on which the Government last year had much proof that there are many others who feel strongly, too—viz., that the Bill was greatly disfigured and impaired by the removal of the Titles Clauses, which were essentially two, the 26th and 27th clauses of the Bill as it was originally introduced into the House of Lords. The first provided a proper title for the candidate who successfully passed through the new licensing board established by the Bill. The second provided that henceforth other titles, to be registrable, must really imply higher education and examinations. We cannot doubt that the removal of these titles was carried under a misapprehension. Lord CAIRNS, for example, argued that neither the new board nor the Medical Council could grant a title; that only the QUEEN could grant titles. Does the QUEEN grant the title of Licentiate of the Apothecaries' Company, or is it granted under Act of Parliament? One other fact will, perhaps, be still more convincing to Lord CAIRNS—that the Government of which he was legal guide and such a distinguished ornament actually provided the same title to which he objected in last year's Bill for the new licentiates. We cannot imagine a more obvious injustice than to create a new licensing board, representing all existing authorities, and then to refuse the passer of it a title, or anything to show for his success. The 27th Clause, giving the Council the right to be satisfied in future about higher titles, representing really higher education and examination, is very important. It gives to the Medical Council a most desirable control over higher medical education, without which the highest degrees and titles may come to much degradation in the future. We implore the Bodies that are conscious of giving higher titles on high grounds not to oppose this Clause, the removal of which from the Bill is tantamount to the removal of eyes from the face. We will confidently hope to see the Bill restored, in these respects, to an unmutilated condition; and we would urge on all medical men in every right way to support the Government in passing it.

Dare quam accipere was the doctrine of the founder of Guy's Hospital. Having once satisfied themselves that both GUY, and the greater authority whom GUY simply followed, were wrong in their great principle that it is more blessed to give than to receive, the advanced representatives of this noble institution have introduced the commercial principle, and Dr. STEELE, in an able letter which we published last week, boldly undertakes their defence. In his letter he advances several arguments in favour of charging patients, or a certain number of patients, who enter the wards. Thus Dr. STEELE tells us of the growing popularity of the notion of helping the poor to help themselves, and he attributes the diminished receipts of the older subscription-hospitals to their not adopting this principle. He shows from the valuable statistics of the Hospital Sunday Fund that a large sum of money in the aggregate is received from patients by many of the hospitals to which awards are given, and he reminds us that several of the larger hospitals, and not a few of the smaller ones, limit their dietary scales, and expect friends

to supply tea, sugar, butter, &c., which most people will regard as a form of money payment. But Dr. STEELE admits that none of these considerations would have justified taking money from patients at Guy's, and he finds the final excuse in other and, as he thinks, more imperative circumstances. The revenues of the hospital are derived almost entirely from land, and have fallen from £50,000 to £30,000, not to mention a further temporary deficit from inroads of the sea on hospital property in Essex; and £30,000 is not enough, it seems, to maintain a metropolitan hospital, *plus* a medical school. At first the pay terms were somewhat deterrent and unpopular, but there is no obvious diminution of cases. On the score of legality the Charity Commissioners have raised no difficulty; and as regards out-patients, who are now charged three pence per week, they were no part of the original conception of the founder, and did not appear till fifty years after the origin of the hospital.

But we are—for the moment waiving the question of out-patients—"of the same opinion still," that every bed in Guy's Hospital is only rightly used when it is at the service of the poor, and that the sale of any number of beds, on whatever terms, even allowing that the patients are not to be distinguished from the ordinary patients of the hospital, and are still at the service of the clinical teachers, is a misuse of the beds and a failure of charity. As regards the argument that payments, or an equivalent of payments, are taken in other hospitals, we have this to say in reply to Dr. STEELE, that they are not hospitals with the affluent endowments of Guy's, and even in these are a blot on hospital charity. Let us imagine the melancholy comparisons which must arise at the tea-time in the ward of a hospital where the supply of tea, butter, and sugar are from without. It is not comforting to think that the worst cases may have the worst tea—perhaps no tea at all,—and that the bread may be unbuttered, or buttered with butter that excites disgust or loathing. GUY did not perform his charity in this piecemeal fashion, and we are sorry that his representatives are driven to find in such shifts any defence for selling the beds that his generosity and that of WILLIAM HUNT provided, and meant "to be without money and without price." We maintain that there are poor enough in this metropolis to fill with fit cases all the beds of the great hospitals, and that the exaction of petty payments lowers charity and does not raise the patients. People that can pay a guinea a week are not the poor for whom hospitals in general were intended. They certainly are not the people whom GUY intended to relieve, and the sooner the authorities of the hospital can revert to the *dare quam accipere* principle the better. We cannot affect any commiseration for a hospital with £30,000 a year clear to start with, nor can we feel much admiration for a management that, with such a basis, has to fall back on the pay principle. If a more economical system of administration would not suffice to keep all the beds in charitable use, it is pitiable to think that the inspiration of such examples as that of GUY should for the present seem to have died out, and that his degenerate followers only sell where he would have given. As for the threepenny arrangement of the out-patient department, we feel something akin to indignation. Why subject the most helpless to a money payment as a condition of relief? Medical practice in the South of London will now have to contend with a demoralising system in which those who pay threepence a week will be apt to think that they are having their medicine on commercial principles. When such things are done at an institution with the origin and history of Guy's, what are we to expect at the special hospitals?

THE final report which Surgeon-General HUNTER has made to the Foreign Office on the cholera epidemic in Egypt is a somewhat voluminous document, and its scope is so wide that it cannot be dealt with in a single article. But the portion which is of the greatest interest at the present moment is that which deals with the etiology of the disease, and, as might have been anticipated, Dr. HUNTER devotes a considerable amount of space to an expansion of the views which he expressed in his provisional report of the 19th of August last, to the effect that cholera has existed in Egypt for many years past, probably ever since the epidemic of 1865, and that last year's fatal outbreak was but the recrudescence of a disease which under different names had at varying intervals prevailed in that country.

So far as we understand Dr. HUNTER, the theory involved is not that of a progressive development of an existing disease which under ordinary circumstances is not Asiatic cholera, but which under favouring conditions of locality, climate, &c., puts on a different type and becomes genuine cholera; but rather one which requires us to regard the cases which are locally known as choleraic, cholerine, or even diarrhœa, as being "but a form of cholera" itself, a disease of which there are varying degrees. When we last commented on this view, we felt that the evidence adduced in favour of it was insufficient, and we awaited this further report in order that the facts on which the view was based might be carefully scrutinised. They are now before us, and they either consist of cases concerning which some history, and often a very brief one, is communicated to Dr. HUNTER himself; or of similar histories transmitted to other observers, who in turn have sent them to Dr. HUNTER; or again, in one instance, of the mere opinion of some nameless "official enjoying a high position," who, it is stated, told Sir EVELYN BARING that cholera has been constant, always following the cattle plague, but that they "are told to say nothing about it." The evidence referred to is derived from many different sources. Dr. SIERRA speaks with due caution; he states that he has met with cases of so-called "cholerine" at Alexandria, the disease being associated with copious vomiting and diarrhœa, and accompanied by a marked fall in the pulse, agitation, and sinking of the eyes. He says he never saw a case of sporadic cholera, but that the sisters in the European hospital told him of two cases which exhibited choleraic symptoms. He urges, however, that he is not in a position "to attempt the solution of so difficult a problem" as that in question, and that if we wish to act in a "rigorously scientific manner" we ought to be extremely reserved. Later on he sends in a memorandum, quoting two cases which are regarded as typical. The first, however, was ordered "chicken or meat" and "vegetables" on the second day after admission in an acute stage of the disease, and this rapid recovery induces Dr. SIERRA to regard it simply as "cholerine." In the other case the patient was suffering, amongst other things, from cold with cyanosis, no pulse or

voice, diarrhœa and vomiting, and stoppage of urine. But it was a hearsay case only, and not one which came under his own observation. Dr. DUTRIEUX procured his information from others, and it is to the effect that in April of last year certain persons were attacked with cramp, collapse, aphonia, and at times with diarrhœa and vomiting, some of them dying within from twenty-four hours to six days. The cases were seven in all, and as regards some the evidence is confined to statements of neighbours that the persons in question had died of vomiting and diarrhœa. The conclusion arrived at by Dr. DUTRIEUX is that cholera centres existed in Lower Egypt before the Damietta outbreak, and that the cholera which prevailed last year was not Asiatic cholera, "but a local cholera." Dr. AMBRON limits himself to one somewhat similar case, which occurred, to the best of his recollection, as far back as 1867, and it is evident that he attributed it to infection retained, in a woollen scarf, since the 1865 epidemic. Dr. SONSINO also supplies a solitary instance of this choleraic disease occurring in 1873, the patient having a subsequent attack in 1874. Dr. MACKIE supplies in one letter an account of "three choleraic cases," which he met with in 1881, and a report of "a fatal case of cholera" in 1872; and in another letter a brief record as to another case of "severe choleraic symptoms" in 1872 or 1873, the notes of which had been destroyed by burning. He further sends an account of a somewhat typical case reported by Dr. KARTULIS, who however, himself would have regarded it as "pernicious fever" had it not been for the suppression of urine; and he also supplies two cases recorded by Dr. MAMLOUK. The first of these is described as intermittent tertiary fever, the cold stage of which was marked by abundant vomitings and diarrhœa, algidity, cyanosis, loss of voice, stoppage of urine, abundant perspiration, and some enlargement of the spleen, and as regards the second case, which was very similar, no diagnosis is given, but it is added that the diarrhœa was not like rice-water. Drs. DE CASTRO and DEMECH also send information through Dr. MACKIE. The former records a continuance of the 1865 epidemic during 1866; he speaks of a non-fatal case of cholera some six or seven years ago; another about three years ago, the patient having had a repetition of all the symptoms from which he had suffered during the 1865 cholera epidemic; and then he refers to two cases in 1882, which he regarded as far different from those which occurred at Damietta in 1883—in short, they were "sporadic." Dr. DEMECH, who went up the Nile in connexion with an outbreak of cholera in the Soudan in 1872, says he has never known a summer without cases of "cholera nostras," but he does not remember any fatal case since 1866, when he declared two cases at Mansourah to be Asiatic cholera. Dr. FOUQUET, who reports through a third person, mentions one serious case of cholera nostras, which much resembled Asiatic cholera, but which was notwithstanding sufficiently marked "to make any mistake impossible." Dr. HADDAD gives information from May, 1883, down to the date of the epidemic outbreak. During May and June a number of persons in and about Assiout suffered from severe diarrhœa, with cramps, collapse, and at times watery evacuations, and in a few instances the disease was fatal. Later on, the disease became more severe, but the first case declared to be cholera was on the 28th of July, and even this was registered as "choleriform." Dr. RABITSCH records a single case in 1878 or 1879, which in all essential respects resembled the cases of cholera he had attended in Vienna in 1866. Dr. PATTERSON gives experience as to a large district about Mansourah, Zagazig, and Samanoud, and he affirms that a form of cholera, by whatever name it may be designated, has been endemic in Egypt every year during his residence there. Dr. MCNALLY, writing from Cairo, gives information obtained from Dr. TSAMIS as to a large cholera mortality at Shibin-al-Kom before its occurrence at Damietta; he records the statement of a railway inspector, made to another railway official, as to a fatal outbreak at Benha, also before the Damietta outbreak. He further quotes the statements of Greek merchants to the effect that in January, 1883, some 200 persons died of diarrhœa and vomiting in the course of a few days at certain villages near Zagazig; and he gives, on the authority of a French engineer, information as to "cholera" at Fayum, and other places, six years ago, and also during recent years. But Dr. MCNALLY gives all this as "inconclusive evidence," and adds that there has not been time to make "satisfactory researches."

Finally, Mr. ANDREW HONMAN, as the result of a visit to places on the banks of the Damietta branch of the Nile, obtained information as to an epidemic at Miniet Samanoud in May and June last, in which the deaths were registered as due to diarrhœa, which was associated with vomiting and cramps, and which was so fatal that the Cadi of the town, fearing the imposition of a cordon, forbade the use of drums at funerals and tried to hush up the existence of the disease.

We have entered thus into detail with regard to the material on which Dr. HUNTER bases his views, because it is essential that the source whence it is derived should be clearly understood. A proportion of it has been received at second and even third hand, the informants at times having had no medical training whatever. This, of course, was a necessity of the case, no other information being in many places procurable. Then, again, a further amount is given with a distinct caution that it is by no means conclusive, and that it is not sufficiently accurate to justify the formation of a decided opinion on the question of the causation of the epidemic. A not insignificant remainder is obtained from medical men who had had but little, if any, previous acquaintance with cholera, and one at least of whom was identified with a specialty having no bearing whatever on cholera. But after all is said, there is an amount of general evidence to show—first, that a fatal form of diarrhœa, often associated with so-called choleraic symptoms, has off and on, and as a rule with the summer season, prevailed in Egypt; and second, that immediately previous to the commencement of the epidemic of cholera in Damietta, this disorder was exceptionally fatal in certain specified localities. According to Dr. HUNTER, who apparently forgets the caution inculcated by the actual observers whom he quotes, the facts "satisfactorily prove ..... that cholera has existed in Egypt in an endemic form since the epidemic of 1865." One of the observers, however, calls attention to the fact that even in the great cities of Europe cases of cholera are noted every year "which are so like Indian cholera that anyone might well be mistaken as to them," and as regards the frequent recurrence of this peculiar and fatal form of choleraic diar

rhœa, we have only to turn to our own statistics in order to see that Egypt is not peculiar in this way. The Registrar-General has a special column in his returns for "cholera," that is to say, a diarrhœa so severe as to be choleraic in character, and the number of deaths recorded under headings which involve a "cholera" nomenclature is always large for the third quarter of the year. Thus, during the past four years the average of "cholera" deaths registered in England and Wales during that quarter has been nearly 330, as many as 597 being registered for 1880, when an exceptional outburst corresponded with an exceptionally high summer temperature. Meteorological conditions affect the character of this choleraic disease even in our climate, and the mere occurrence of such a disease in an aggravated form in an Egyptian climate, and under sanitary conditions of the vilest sort, is not to be wondered at, and this quite apart from cholera of the Asiatic type. Had Dr. HUNTER taken the view that this diarrhœa was of a specific type, and that under special local conditions of filth, climate, and otherwise the poison became more virulent, and acquired the power of self-propagation, we could readily have understood how the evidence he adduces, imperfect and incomplete as it is, could have been held to point to such a progressive development during May and June of last year, until the final outburst of genuine cholera took place. But this view he discards altogether; he declares absolutely that the "contagion ..... has no existence;" that measures of medical inspection to control its spread are worthless; and he urges that the disease does not follow the lines of human intercourse. And yet the whole burden of the report is to connect the epidemic of 1883 with that of 1865. Had Dr. HUNTER been the strongest believer in the contagion theory, he could hardly have taken greater pains to record every case which could possibly have constituted a connecting link between the two epidemics, or to procure evidence with a view of filling in all the breaks in one chain of continuous infection. The theory that cholera, as such, has existed in Egypt since 1865 cannot, we think, be accepted on evidence of the sort which Dr. HUNTER has obtained and put together. Whether the epidemic of 1883 was due to importation, to mere local causes, or to development from a virulent and specific form of diarrhœa, we shall consider on a future occasic

THE meeting at the Mansion House, on Friday, the 1st inst., to promote the establishment of a "Hospitals Association," was an event of some interest. The suggestion that such an Association should be formed originated with a committee appointed by the Conference on Hospitals in July last, which conference was convened at the instigation of the Social Science Association. The general objects to be aimed at by the Hospitals Association are the discussion of matters connected with hospital management and the adoption of measures to further the conclusions arrived at; the promotion of knowledge of hospital subjects by the reading and discussion of papers, the delivering of lectures, the exhibition of plans, diagrams, &c. It is satisfactory to find the LORD MAYOR placing the Mansion House at the disposal of those who are so much interested in hospital affairs. The resolution to form such an Association was moved by Sir THOS. F. BUXTON, and seconded by Sir RUTHERFORD ALCOCK, and carried all but unanimously. So, we have another Association added to those already existing.

There can be little difference of opinion as to the interest and importance of the objects aimed at by the Hospitals Association. There is one conspicuous defect in the list of its objects—viz., the devising of measures for increasing the income of hospitals and relieving the heavy anxiety of those who are now devoting so much and such gratuitous care to the problem of keeping hospitals going with an income short by thousands of their expenditure. This fatal defect in the programme of the promoters, and the general drift of the speeches, gave much force to Dr. GLOVER'S contention that the new Association was to be mainly critical in its functions, and that there had been already enough of criticism. At any rate, he maintained that there were institutions already in existence fully able to supply any amount of criticism, as they had already supplied much. Dr. GLOVER refuted the statement that a million persons in London used the charitable institutions, by showing that this million was made up largely of chronic cases, whose letters lasted only a month, and often had several letters in various institutions. Each letter is counted as a separate patient and so makes up the million which does so much duty in the arguments of some hospital reformers. It does really seem superfluous to add another society to the Hospital Sunday Fund, the Hospital Saturday Fund, and the Charity Organisation Society. Nobody can deny that the Charity Organisation Society is critical enough. Sir RUTHERFORD ALCOCK said at the meeting that all of the hospitals were more or less in an insolvent state," and he was not far wrong. A little more criticism and they will be shut up altogether. People are easily persuaded *not* to give. Under these circumstances we are very much disposed to think that this Association should either assume some helping and sympathising function or leave the work to be done by the bodies that help while they criticise. One thing is clear, that we have no excess of hospital accommodation for our huge metropolitan population. There is some risk that among the bitter cries of the poor in London will soon be this—that beds in hospitals meant for them are appropriated to comparatively comfortable and well-to-do people for a pecuniary consideration. The new Association will deserve but a short life unless it can give new sympathy and fresh life to those institutions which have been the chief boast of Christianity.

Annotations.

"Ne quid nimis."

PHYSIOLOGICAL SCIENCE AT OXFORD.

DR. ACLAND, by his letter to *The Times* and by his action in the recent debate in Convocation, has laid the whole scientific world under obligation. He has effectually foiled the attempt to place Oxford in a false position in relation to biological science, and the meaner attempt still to put a stigma of inhumanity on physiology and its kind-hearted and high-minded representative, Dr. Burdon Sanderson. The vote of Convocation in favour of borrowing from the funds appropriated to the Bodleian Library the sum of £10,000 for the purpose of erecting a physiological laboratory for Dr. Sanderson is the just reward of the

stand made by Dr. Acland. We repel with indignation the charge that physiological research in the hands of such men as Dr. Sanderson can, in the long run, bode anything but good to either men or animals. Those who make such charges cannot see the solidarity of the animal world. They forget that "the whole creation groans" under a load of disease that has to be lightened, and that in the discovery of means for this end animals may fairly bear their share of suffering, minimised in every possible way by the devices of the most humane of the sciences. We congratule Oxford on the triumph of common sense in this matter, and of that Christian sense which perceives that man is of more value than "many sparrows."

THE MANCHESTER UNIVERSITY CLUB AND SIR JOSEPH LISTER.

MANCHESTER has been doing honour to Sir Joseph Lister. The thriving Manchester University Club invited Sir Joseph to its annual dinner at the Queen's Hotel, and well was the guest entertained and appreciated, as the author of the antiseptic system of surgery. Mr. Hardie occupied the chair, and did full justice to the guest of the evening, whom he had known as a fellow resident medical officer in the University of Edinburgh, and in whom at that time he had recognised those qualities of research which had since borne fruit so beneficial in the healing of the nations, for, as Mr. Hardie pointed out, the system was received in Europe and America generally. Professor Lister made a very feeling reply. He said:—

"Reference had been made to the honour which had recently been conferred upon him; he confessed it was an honour he for one never coveted. To be permitted, if it might be so, to do something yet in the way of making more clear and also more simple the treatment of surgical wounds had been to him something imcomparably more valuable than any titular distinction; and when he remembered that some of the grandest men in the history of British surgery, men in comparison with whom he felt like a dwarf in the presence of giants—men like Cheselden, Hunter, Abernèthy, and Syme—had gone to their graves with no other honour than the imperishable renown that attached to their achievements—he said with these considerations he would have been well pleased to have remained untitled. Nevertheless, when this honour was offered to him by the Prime Minister, on behalf of Her Majesty, in recognition, as Mr. Gladstone expressed it, of the 'distinguished services you have rendered to your profession, and to those interests of suffering humanity with which it is inseparably connected'—coming in this way, and promising to be, so to speak, an expression of the approval of Her Majesty and her advisers of those principles which he had for so many years striven to maintain—under these circumstances he felt it was not for him to refuse the honour which was offered to him."

SIR BARTLE FRERE.

WE are enabled to give the following particulars of Sir Bartle Frere's serious illness. The distinguished baronet had been suffering from slight indisposition for ten days. On Friday, Feb. 1st, an old varicose vein in the left leg became inflamed, accompanied by fever. The inflammation spread to some of the other superficial veins in the calf, but did not extend above the knee. On Sunday morning he suddenly became cold and collapsed, the pulse being hardly perceptible; this was followed a few hours later by a second attack, which nearly proved fatal. Since then Sir Bartle has progressed favourably, and his strength is well maintained, but there are still symptoms which give rise to some uneasiness. Sir William Jenner and Sir James Paget have been in almost daily attendance, in conjunction with Mr. William Irving Page, Sir Bartle Frere's usual medical attendant.

ACUTE MYELITIS IN SYPHILIS.

IN the *Revue de Médecine* (January, 1884), Dr. Déjerine gives full details of two cases of rapidly fatal acute myelitis in syphilitic subjects, remarkable for the early period in the course of the constitutional disease that the spinal lesion developed, as well as for the nature of the lesion. For although chronic disease of the spinal cord is no doubt often genetically allied to the syphilitic taint, and notably posterior spinal sclerosis, yet such lesions are late manifestations. But just as occasionally cerebral syphilis appears early, so Dr. Déjerine contends may "spinal syphilis," and the cases are contributed as evidence in support of this. The first case occurred in a coachman, fifty-one years of age, who contracted syphilis thirteen months before, having had no other manifestations beyond the primary chancre, which ulcerated anew five months after its cicatrisation. He had taken mercury for two months on each occasion. The nervous symptoms commenced with headache and irritability of the bladder; then weakness of the legs, lightning pains, and cramps; followed in a few days by complete paraplegia, the absolute loss of power occurring suddenly. He was admitted into La Charité under Professor Vulpian, when, in addition to the motor paralysis, there was found to be complete anæsthesia from the umbilicus downwards, incontinence of urine, headache, and commencing sloughs over the buttocks. The course of the case was rapid, the gangrene involving also the heels and the abdominal walls (from the application of a poultice), and death occurred from pulmonary œdema, twenty-eight days from the onset of the paralysis. The post-mortem examination revealed acute central myelitis, extending from the lower part of the cervical to the lower part of the lumbar region, with commencing ascending degeneration traceable to the medulla. Marked degenerative changes were present in the anterior nerve-roots and in the cutaneous nerves supplying the abdominal wall at the seat of the sloughs, but the posterior nerve-roots were intact. The second case was that of a man, thirty-eight years of age, who a year previously had contracted syphilis, followed by secondary lesions, rapidly disappearing under specific treatment. A week before his admission into the Maison Municipale de Santé he had experienced pain in the spine, and paraplegia began on the day before his admission, with no pain or altered sensations in the legs, but a "girdle-pain" around the abdomen and lower part of the chest. He was found to be completely paralysed in the lower limbs, and anæsthetic to the level of the margin of the thorax; reflexes abolished; paralysis of sphincters; no interference with respiration, but inability to expectorate. On the sixth day a large superficial slough appeared on the sacrum, diarrhœa set in, and death occurred eight days after the onset of the paralysis. In this case the myelitic changes involved the grey matter of the lower half of the dorsal and upper half of the lumbar region, with degenerative changes in the corresponding anterior nerve-roots, but none in the posterior. Dr. Déjerine, who gives a minute histological description of the spinal cord in these cases, points out that they in no respect differ anatomically from acute central myelitis in general, but he does not believe that the absence of distinctive syphilitic lesions is sufficient to negative the idea that syphilis was the exciting cause of the myelitis. It often happens in syphilitic subjects that organs are the seat of a chronic interstitial inflammation which does not bear any specific anatomical characters, but which is indubitably due to the action of the syphilitic virus. As to acute inflammations, the broncho-pneumonia of measles cannot be distinguished anatomically from other forms of broncho-pneumonia; and we refer to measles as the cause, just as we refer to diphtheria as the cause of its paralytic sequelæ, because of the frequency with which the local affections follow upon the general. Applying this to syphilitic myelitis, the relative frequency of

chronic myelitis in syphilis impels the acceptance that the former is often due to the latter, and, although acute myelitis is rare in syphilis, it is a relatively rare disease in itself; and, when the myelitis supervenes, as in these two cases, so closely upon syphilitic infection, there is ground enough for accepting the existence of an acute syphilitic myelitis. At the same time, Dr. Déjerine guards his argument by stating that although syphilis may excite the spinal inflammation, there is no doubt a special disposition or proclivity to the local disease in the subjects who are attacked by it.

FOOTBALL ACCIDENTS.

THE fatal accident that recently occurred at Bath at a football match (played under "Rugby" rules), has, as might naturally be expected, given rise to considerable discussion. It appears that at the inquest it was shown that death ensued from apoplexy, the result of the rupture of one of the cerebral vessels, which of course implies, in the absence of evidence that there was any laceration of the brain substance or fracture of the skull, that death resulted from over-distension of a diseased vessel, and not from direct violence. For death to result from such a condition of bloodvessels in one so young is extremely rare, though not impossible. In cases of apoplexy occurring in young subjects the lesion is not generally associated with general arterial degeneration, granular kidneys, and heart disease; but is the result of aneurism of the cerebral vessels, and such a condition is of course compatible with a condition of apparently good health, and may be perfectly unsuspected. But, without any details of a post-mortem, it is impossible to speak with certainty with regard to the exact nature of the lesion. However it may be, whether the injury was caused by direct or indirect agency, it does not alter the opinions previously expressed with regard to the undue violence with which the game is often played. It appears that four other accidents happened during the same game at which the fatal occurrence took place, and we have had repeatedly of late to draw attention to the numerous casualties that are constantly taking place at football matches. Our views on the subject are so well known that we need not go over the ground again, but we most earnestly appeal to those who are responsible for the management and conduct of these matches to endeavour to devise some means by which this really noble game may be rescued from its present low position, which in the Rugby form is really little more than a rough bear fight, in which the strongest and heaviest have an undoubted advantage.

SCLEROSIS OF THE SPINAL CORD.

DISEASE works in a wondrously curious fashion. It seems to abide by no laws other than those which it dictates for itself. Hence the difficulty of giving a perfect forecast of the individual case. But in truth such statements only emanate from us when we come across facts which more or less tend to surprise us—material, indeed, which is on the whole new to our experience. Disease is nevertheless amenable to laws which we either do not know or are only partially acquainted with. In the last number of the *Archives de Neurologie*, No. 19, MM. Ballett and Minor have very carefully recorded a case of what they term "associated pseudo-systemic sclerosis of the spinal cord." The title perhaps is not at first sight wholly comprehensible. Sclerosis, as is known, often invades the systems of the cord—i.e., follows the paths pointed out for it by embryological anatomy. It is common enough to meet with degeneration of the crossed and direct pyramidal tracts, or of the posterior median column, or of the postero-external column. These would be termed systemic lesions, and they may be variously combined. But at times also disease overrides these, to it, petty distinctions, and then we get irregularly distributed areas of disease. The case recorded by MM. Ballett and Minor, whilst not partaking of the nature of disseminated sclerosis, and whilst in a large degree preserving the distinction of systemic lesions, yet has certain peculiarities. The main symptoms during life were spasmodic paralysis of all the four limbs and pains about the chest and lower extremities. The optic nerves had undergone grey atrophy. The microscopic anatomy is beautifully illustrated by coloured figures. The posterior columns of the cord are not affected in the lumbar region until the upper part is reached, and here the sclerosis affects nearly their whole area, the free portions being two narrow opposed bands, one in each column of Goll. At the lower end of the dorsal region the greater part of the posterior columns are still affected, but the small columns of Goll escape. On going higher up the cord the whole of the posterior columns is found to be sclerosed, though the columns of Goll much less so than the rest. But in the upper cervical region it is the columns of Goll which are alone degenerated, the postero-external columns being intact. The lateral columns are sclerosed from the crossing of the pyramidal tracts in the medulla oblongata down to the lumbar region. The sclerosis involves both the direct cerebellar tract and crossed pyramidal tracts on both sides. It is complete and dense in the greater part of the cord, but is limited to the periphery and posterior part of the white matter in the lumbar region. Needless to say, a glance at the coloured figures will convey more information than any amount of word picturing. The authors believe that the degeneration resulted from a vascular lesion, and the patient was probably the subject of syphilis. We have not attempted to present a complete description of this neatly recorded case; for this our readers are referred to the original source.

OVERWORK IN SCHOOLS.

IT would be a great gain to the interests of common sense if we could arrive at something like a common understanding as to the nature of "overwork," its causes, and consequences. While the medical advisers of the Education Department give warm expression to discordant opinions, it can scarcely be surprising that no good reform is carried out. At present, it cannot be disguised that we differ among ourselves on this subject, as on too many others. This difference is in no way remarkable, and it does not so much indicate divergence of view as lack of pains to take up the same standpoint. The fault of the educationary system lies in the fact that it is a system. No one method of training can be applicable to all brains. The difficulty we have to face is the inevitable result of attempting to educate a multitude of children by one process and up to one standard. Unless the method be so simple and the standard so low that they cannot possibly injure any brain—in which case they would probably be almost useless—some brains must suffer. It is so with every "system." Muscle-training has its victims as well as mind- or brain-training. The question for us as a nation, now that we have a "national system of education," is: shall we lower the standard for *all*, or exercise a little care with a view to eliminate those individual brains which are not capable of being trained by the general process? We think it would be better policy to pursue the last-mentioned plan than the former. Every Board school should have its medical officer, whose duty it should be to visit the school while the children are at work and to observe any indications of brain-worry. It is no use expecting medical men to detect the evidences of incipient brain trouble when the overtaught are enjoying periods of

relaxation. Children are, so to say, elastic, and they quickly cast off the effects of brain-pressure, but it is none the less injurious to them while it lasts; and, being often repeated, it must do mischief. If a medical man versed in the phenomena of mental work will patiently go through a school during the hours of study he will have no difficulty in picking out the "worried." The indications of *effort* are unmistakable while work is in progress, and it is then they should be looked for. "Overwork" is a misnomer. It is "worry" that does dire mischief. Worry is the effect of effort—an effort to do something which too severely taxes the powers. There should be no straining in training. Health of brain is like health in the rest of the body—it consists in the ability to perform functions without effort. We do not recommend that any hasty change should be made in the standards of education, but we do earnestly and urgently counsel that measures should be at once taken to secure the careful and studied observation of brains at work, with the view of adopting special measures with those that are weakly.

THE RELATIONS OF THE MEDULLA TO THE SEXUAL FUNCTION.

THE medulla oblongata has, for its size, to fulfil more varied functions than any other part of the organism, for it is the centre of all the vitally important reflex actions, besides probably exerting a considerable control over secretion. Dr. Alexander Harkin of Belfast advances (*Practitioner*, February, 1884) arguments in favour of Van der Kolk's notion that this part of the nervous system is also particularly related to the genital function; and believes there to be a "sexual centre," as well as "respiratory," "convulsive," and other centres in this region. He points out the association between sexual excess and neurotic affections, notably epilepsy; and thinks there is good reason for the belief that so-called "neurasthenia spinalis" and "abnormal seminal losses" depend on a congested state of the medulla. He selects three cases in which the symptoms of these conditions were very marked, in each of which striking relief and even cure was effected by wet cupping over the nape of the neck. Cold douches in the same region and the administration of bromide of potassium and belladonna are often, he says, as effectual. Dr Harkin's views are certainly worthy of consideration; and his line of practice, combined with precepts intended to strengthen the will and improve the physical condition, is one which should not be disregarded in dealing with those unfortunate subjects of a hypochondriasis induced by perverted and unnatural sexual excitation.

DANGERS OF GAS LIGHTING.

SHOULD the gas be turned off at the main every night, or not? There are difficulties either way. When the gas is turned off at the main at night single burners are apt to be overlooked, and next evening gas escapes from these burners, and when a lighted candle is taken into the room an explosion is likely to follow. From this point of view it is safer to leave the gas always on. But, on the other hand, the gas fittings in houses are often extremely bad. The joints almost always leak to a certain extent, and therefore leaving the gas turned on at the main all night means allowing coal gas to escape into the house. Sufficient proof of this is afforded by the well-known fact that when the gas is turned off at the meter at night the pipes are generally found full of air next day, showing that the gas has leaked out in spite of there being no internal pressure. Now, several of the constituents of unburnt gas are poisonous, and one particularly, carbonic oxide, always present in considerable quantity, is a deadly poison. To have this gas escaping, even in small quantity, into the air of a bedroom is a serious matter, and we are inclined to think that painful, if not serious, symptoms are sometimes produced in this way. Probably it is, on the whole, safer to turn the gas off at the main and to protect ourselves against explosions by a careful inspection of burners. If householders knew how carelessly the gas fittings are commonly made, and how leaky are the stopcocks, they would perhaps look after them a little more closely.

POISONING BY "INDIAN TINCTURE."

ON Jan. 26th, at the Railway Hotel, Moss Bank, St. Helen's, the adjourned inquest respecting the death of Samuel Yates, aged nine years, was concluded. The mother of the deceased purchased some of the "tincture" from a local grocer, who obtained it from a general dealer and patent medicine vendor. Certain directions were printed on the bottle, but these, it seems, were not read, or were disregarded. The result was that an ounce of the preparation administered in one dose proved fatal with symptoms of coma in a few hours. Dr. Campbell Brown, the county analyst, deposed that the mixture contained 30 per cent. of methylated spirit, a small quantity of ether, and two resins, one of which he believed was derived from capsicum, and the other he conjectured was the active principle of Indian hemp. There seems no reason to suppose but that some powerful narcotic agent was present in addition to the alcohol. Since, however, about two drachms and a half of methylated spirit were taken, the symptoms are to a great extent accounted for, considering the age of the deceased. We do not gather that the "Indian tincture" was a patent medicine; if it was not, the compounder is answerable for contravening the law relating to such commodities. This, however, gives little satisfaction to the public mind. The evil is none the less because sanctioned by "the Government stamp of approval." Our readers may refer to a leader on the subject in THE LANCET of Jan. 12th. The verdict at the inquest was death from misadventure. The vendor of the medicine and the mother of the deceased were censured for their carelessness.

MODIFIED SMALL-POX AT KIMBERLEY.

A CURIOUS controversy has been agitating the profession at the Cape respecting the diagnosis of cases of reputed small-pox at Kimberley, and it has attracted such attention as to receive prominent notice in the *Cape Times* (Dec. 27th). It appears that on October 30th, Dr. Jamieson of Kimberley sent into hospital two native patients suffering as he thought from confluent small-pox, but on November 3rd he came to the conclusion that the malady was acute lichen, whilst Dr. Matthews held it to be, in at least one of the cases, pemphigus. Dr. Smith, who has charge of a quarantine station and hospital, did not concur in this diagnosis, and the same diversity resulted from a medical commission consisting of Drs. Jamieson, Murphy, Matthews, Otto, Smith, and Grimmer. "Drs. Jamieson and Matthews decided that it was not infectious or contagious; Dr. Murphy that it was contagious and infectious, but only to Kaffirs; Drs. Otto, Smith, and Grimmer that it was infectious and contagious." The views taken by them respectively being that it was (1) a bullous affection allied to pemphigus; (2) the ordinary Kaffir pock; (3) allied to small-pox; (4) genuine small-pox; and this latter view was shared by other medical men independent of the commission. It was therefore decided to continue the quarantine and to summon a medical expert to investigate and report. Dr. Falkiner was selected for this purpose, and by the time he arrived the disease had spread very considerably. Dr. Falkiner reported that the disease was small-pox, although Dr. Jamieson still contested the point. In a paper read before the Medical Society at Cape Town Dr. Falkiner gave his reasons for regarding it as small-pox; and certainly in view of the highly contagious

nature of the disease, which rapidly assumed an epidemic character, and was attended by great mortality, quite apart from minute characteristics, no other conclusion could well be arrived at. It is some consolation to know that in spite of the differences of opinion as to the nature of the disease, the authorities were doing what they could to check its progress by sanitary measures, and we quite agree with the *Cape Times* in its remark, that "it really matters little whether the disease is small-pox or something else. It is infectious, it is loathsome, it is fatal in almost the same proportion of cases as the genuine small-pox. It is therefore necessary that every reasonable precaution shall be taken against its introduction."

CHOLERA NEWS.

IT is stated that none of the Egyptian pilgrims were attacked by cholera at Mecca during the late pilgrimage. The first victims attacked were Turkish soldiers of the guard at Muna, where the disease was first observed. No cholera was observed in Mecca during the sojourn of the pilgrims there before proceeding to Muna for the sacrifice, but on their return from Muna to Mecca; the disease showed itself also at the latter place. No cases of cholera nor "suspected cases" were observed at Camaran amongst the Indian or other pilgrims who performed quarantine there before being allowed to disembark at Jeddah to proceed to Mecca. The unsanitary condition of Mecca and Muna at the time of the sacrifice is reported to have been, as usual, bad beyond description. The present increase in mortality from cholera in the town of Bombay is attributed to interruption of the water-supply by an accident to the main conduit, necessitating recourse for some time to the water of wells and tanks. The cases are reported by the health officer to have occurred in quarters of the town where the wells were particularly objectionable. The Egyptian Quarantine Board, however, regard it as a fresh epidemic outbreak, and have imposed quarantine—their *ne plus ultra* of security,—though many of the members must be intelligent enough to know that it is like putting up an iron grating to keep out mosquitoes, and that it only prevents the employment of better and more efficacious means.

TEMPERANCE INSURANCE.

SURELY the tables were never more completely turned than on the subject of temperance and insurance. *The Times* recently published a letter from Mr. Robert Warner, in which that gentleman records a fact pretty generally known amongst the abstaining community, that the first insurance office established on a temperance basis was founded because a leading insurance office refused to insure him, Mr. Warner, without surcharge, on the ground that the life of an abstainer from alcoholic beverages was not so good as the life of a man who partook of such beverages. In these days the judgment on this question is being reversed in the most striking manner. All the companies are becoming more and more particular in their inquiries as to the drinking habits of proposing insurers. Some companies, the Briton for example, are permitting abstainers to insure at a reduced annual premium, and new companies are being formed in order to carry out other special advantages for the absolutely temperate. One company, the United Kingdom Temperance and General Provident Institution, founded by Mr. Warner forty-four years ago, has had from the first two classes of insurers, one of temperate, another of abstaining habits. There is no denying that the results of this test have been strongly in favour of the abstaining class, and that the vulgar prejudice which originally enforced the contest is by the merciless logic of facts shown to be wrong. We agree, however, with what Mr. Messent said at a recent meeting of the Medical Temperance Association—namely, that the test which will completely settle the question is the reduction of premiums to *bonâ-fide* abstainers, because by that test if the insured does not keep to the principles he professes he runs the risk of forfeiting the benefit he is seeking to secure. That some difficulties may occur occasionally; that some men may insure as abstainers and break their word is possible, for this is a wicked world, and all secret offences are not discovered even by the most skilfully observant. But the mistakes that may arise will, after all, be small compared with the bane to insurance which springs from the immeasurable mortality from alcoholic indulgence amongst those who are under no pledge of temperance whatever. Already it is well known that the surcharge of three years, 10 per cent., which is put by most offices on the lives of publicans, is utterly inadequate, and now certain offices seem inclined to refuse the publican class altogether. It would be interesting, scientifically and commercially, to see on what scale of premiums a company could successfully work a society composed exclusively of those licensed victuallers who, changing positions with Mr. Warner, cannot now get into an office without surcharge because they are partakers of alcoholic beverages. There is an excellent opportunity at this moment for some men of enterprise, who have faith in their principles, to try this important and crucial experiment as against extremists.

DR. JAEGER'S SANITARY WOOLLEN CLOTHING SYSTEM.

IN our last week's issue we advocated the general adoption of woollen in preference to linen or cotton underclothing. We did not then pretend to originate a theory, but to popularise one already existent. The work of origination had been accomplished. It need not be invidious to mention the name of Dr. Gustav Jaeger as prominent in this work, inasmuch as he has developed the wholesome doctrine which he professes into a system of clothes reform. While we cannot follow Dr. Jaeger in every proposition he puts forth—as, for instance, when he recommends that the woollen shirt should be put on over a wet skin, and when he dwells with rather finical minuteness on the difference between "noxious" and "salutary" exhalations from the body into the atmosphere,—we congratulate him on his able and practical recognition of the usefulness of wool as a covering. The avoidance of noxious dyes, the adoption of woollen materials for every article of dress and for all bedding, the dictum that warm and sufficient underclothing should obviate the need of great-coats, are points of sound hygiene which speak in favour of his system.

WIGTOWN WATER-SUPPLY.

SINCE our last notice of health affairs at Wigtown, in our issue of January 26th, we have had an opportunity of considering the analysis obtained by Dr. M'Bride, as well as that of Dr. Voelcker, and Dr. Littlejohn's special report to the Board of Supervision upon both. This last document is in every way satisfactory, dealing as it does with the marked differences in the results obtained by the two analysts, urging the necessity of considering the surroundings before passing a final judgment on a specimen of water, showing how in this case these must be received with the gravest suspicion, and finally recommending that, after a lapse of three months, an independent analysis should be obtained. Dr. Littlejohn is clearly of opinion that with an amount of organic albuminoid ammonia equal to ·009, Dr. Voelcker was not justified in giving such a high character to the water from a particular well; and when due weight is given to the proportion of chlorides found, it is difficult to escape the conclusion that already sewage pollution has occurred. With but 3·29 to 3·52 grains of lime to the gallon, from 2·32 to

3·19 grains of sodium chloride are given, and a comparison of these figures adds considerably to the suspicion excited by the proportion of the chloride found. The second chemist, Mr. Kinch, speaks of the nitric acid as present in "very large quantities"; so that, taking all the available evidence, it seems imperative that the local authority should at once face the uncomfortable facts as to the sanitary state of their district, and set about such improvements as have been pointed out to them. Under the present circumstances the town is at any moment liable to a zymotic outbreak, and in presence of such a danger unity of action rather than internecine strife should be sought.

POISONING BY LOBELIA.

WE do not intend to question the justice of the verdict returned in the trial for manslaughter recently brought against a herbalist named James Wallace; nor shall we dwell upon the consistency between the finding of the jury and the subsequent admonition to the man they had acquitted; but confine ourselves to the consideration of the question, Is lobelia a poison? In the face of the medical evidence, the jury can scarcely be held at fault for attempting to distinguish between a "disputed" and a "poisonous" drug. It is a common idea that so long as drugs are not mentioned in the schedule of poisons proscribed by law, they may be taken with impunity and administered without fear. Against this assumption we enter an emphatic protest. That certain persons have taken lobelia in large quantities without apparent ill-effects is no argument that the herb is innocuous; for "what is one man's meat is another man's poison." Then, again, who would dare to assert that opium is harmless because its *habitués* are able to consume it to an immoderate extent? Even where the evil consequences are remote and for a long time ill-defined, irreparable damage may ultimately be done to body and mind. Were not Coleridge's transcendent mental abilities warped and fettered, and De Quincey's moral nature undermined and shaken, by opium-eating. It is stated on unimpeachable authority that "lobelia is an active medicine and a potent poison" (Guy and Ferrie). One case is recorded where a drachm of the powdered leaves proved fatal in thirty-six hours. No amount of adverse opinion and negative facts can outweigh the positive evidence that lobelia is a dangerously poisonous drug.

NEW TRANSFUSION APPARATUS.

AN apparatus for direct transfusion has been invented by M. Dieulafoy (*Progrès Méd.*, Feb. 2nd) which has some advantages over that of Roussel. It consists of a small piston capable of containing ten grammes of blood, attached at right angles to a glass "receiver," from which proceeds at each extremity a rubber tube, guarded by a stopcock. A trocar and cannula, as in the thoracic aspirator, are employed both to tap the vein of the donor and to inject that of the subject. The patient and the donor of the blood are so placed on beds side by side that the two arms shall be in opposite directions. An elastic fillet being placed on the upper arm, the trocar is plunged at the bend of the elbow into the distended vein of the patient in the direction of the blood-stream, and the cannula left in place, the jetting of blood on withdrawal of the trocar indicating that the vein has been pierced. The same manœuvre is adopted with the vein of the donor, except that in his case the trocar is directed against the direction of the current, and the fillet is never removed from the limb. This cannula is at once connected with the receiver, which is filled with the blood by aspiration, care being taken to expel all air by means of the piston, and thus to fill with blood the second tube, which is now attached to the cannula in the vein of the patient, from whose arm the fillet is now removed. The operation is now proceeded with, by slowly aspirating and injecting until a sufficient quantity has been transfused. The punctures in the veins are so small that it suffices to employ compression by a sponge for a few minutes to avert any risk of subsequent hæmorrhage. The apparatus has been made by M. Collin, and M. Dieulafoy has employed it in a case of diabetes on three successive occasions.

ISOLATION AND ITS CONSEQUENCES IN LIVERPOOL.

WE have often referred to the failure of the Corporation of Liverpool to provide means for the isolation of the infectious sick, and to the serious social wrong which would certainly be inflicted on respectable ratepayers and other inhabitants if the existing arrangements for sending non-paupers to workhouse hospitals were not at once put an end to. A significant case is now reported in the *Liverpool Review*. The daughter of a respectable tradesman residing in the principal business thoroughfare at the south end of the city was found to be suffering from small-pox, and it is alleged that after much persuasion the father consented to her removal "to hospital," that this involved application to the medical officer of health, and that the removal was effected "by the Corporation officials." The father, however, soon found that instead of his daughter being in an isolation hospital belonging to the sanitary authority, she was in the workhouse, and that there she would have to remain in association with paupers and their like until convalescent. And not only so, but the *Review* points out that at the next Revision Court the father will find himself deprived of his political rights on the ground of pauperism. Assuming the circumstances to be correctly stated—and we do not see how such a case can well be avoided in Liverpool—we have no hesitation in saying that they constitute one of the most deplorable proofs of grave default that could well be instanced. The weekly returns of the Registrar-General show that this case is by no means an isolated attack of small-pox, and yet in the face of a possible extension of this disease, "there is not," to quote the words of an article in the *Review*, "a single bed in any institution available for a patient suffering from small-pox which does not entail the same moral, social, and political disabilities which are at this present time being endured by the family of the girl to whose case we have referred." The Corporation are in possession of a site, and they should lose no time in providing themselves with proper hospital buildings.

"HIS LORDSHIP'S FOUR MEDICAL ATTENDANTS AND BUTLER."

WHY not? *The Times'* reporter gives the four medical attendants on his late lordship of Hertford precedence of his "butler"; what more can be desired? We are amazed to receive complaints on this score and to be urged to protest. While medical men are pleased to count it an honour to be on the establishments or households of dignitaries, they have, in our opinion, no right to complain—at least there can be no appeal outside the "household"—if they are not accorded precisely the place they desire. It will be seen that we are not concerned to affirm or defend the supposed "rights" of medical men in their official connexion with the high and mighty of the land. If *attached*, they must bow to the conditions afforded them. What we have to say is simply [that physicians and surgeons are not, in a professional sense, justified in attaching themselves to great families. We are not now thinking or speaking of the Royal Household—that stands on a distinct footing and occupies a unique position; but if medical men desire or permit themselves to be called "the physician of his lordship of ——," and the like, they

must be content to find themselves classed with the butler, and hold themselves happy if they are accorded so high a place in the household as that association implies. Doubtless the noble lord at whose obsequies "four medical attendants and butler" followed together had many times in the course of his career been compelled to consult counsel learned in the law. We do not, however, gather that these gentlemen considered themselves attached, or that they attended the funeral. The members of the legal profession, at least in its higher walks, know how to keep themselves aloof from these attachments. They do not figure as the counsel of his lordship, and therefore they do not incur any risk of being classed with his butler. When we begin to respect ourselves we shall be respected.

POISONING FROM BAD MEAT.

ACCORDING to Huber (who treated the subject in 1878 in the *Archive der Heilkunde*) the above title applies to a group of diseases which, though possessing various features in common, have been often mistaken by reason of their peculiar causes. Huber alludes to the uniform and characteristic features of these cases, which he divides into two groups. The shorter form of the disease quickly manifests itself (sometimes in a few hours) after the poison has begun to operate, convalescence or death ensuing in a few days. Excessive vomiting, violent colicky pains, indifference to surrounding objects, rapid failure of strength, extreme feeling of cold, cramp in the muscles of the calves, and low temperature of the skin in all parts of the body, are referred to in connexion with this form of the malady. In fact a certain resemblance between it and cholera is pointed out. Extreme weakness and occasional shivering only introduce the special appearances connected with the disease, which manifest themselves in the digestive canal and the nervous system. Vomiting and diarrhœa, followed by constipation, indicate the derangement of the former; while the affection of the latter is shown by great excitability, and occasionally by sleeplessness and delirium. The slower form of the disease is, however, considered the more fatal. The interval between the infection and the appearance of the disease is usually six days or more. The preliminary symptoms may then last some days, and the actual outbreak of the disease is attended rather by constipation than by vomiting and diarrhœa, while the most serious disturbances in the nervous system are noticeable. Feverish appearances are also present, as well as a decided increase of temperature. These symptoms are followed by cramps in the muscles (particularly the calves), hoarseness and aphonia, oppression in the chest, and violent palpitation of the heart. Convalescence is slow in both cases, and the smallest mistake in diet is apt to cause a renewal of the above symptoms, or even a complete relapse.

SUICIDE IN A CAB.

ON Wednesday, January 31st, Dr. Danford Thomas, the coroner for Central Middlesex, held an inquest at the Middlesex Hospital touching the death of a solicitor who was found dead in a hansom cab. It appears that the deceased got into the vehicle at Kentish-town and asked to be driven to Victoria Station. Shortly afterwards the driver heard a report of firearms, and on opening the trapdoor of his cab found the latter full of smoke and the deceased with a pistol in his hand and a bullet wound in his head. Pecuniary difficulties were alleged as the motive to the act, and it is in evidence that the deceased had shown signs of mental depression. Moreover, a penny was the only money found on him. These statements certainly point to suicide as the probable mode of death; at the same time some of them are open to another construction, and for that reason it is a matter of regret that no medical evidence was taken at the inquest. In the interest of all concerned, it would have been better had the probability as it at present stands been reduced to a certainty. Such cases ought not to be slurred over merely because the facts appear self-evident, for the records of violent deaths contain too many instances of false conclusion.

THE PARKES MUSEUM.

ON Thursday, Jan. 31st, Mr. H. A. Darbishire, architect to the Peabody Trust, delivered a lecture on "Artisans' and Labourers' Dwellings." Captain Douglas Galton was in the chair. The lecturer insisted upon the necessity of a judicious classification of the poor. Costermongers were often well enough off, especially in the summer time. The difficulty of providing suitable accommodation depended on many circumstances, such as habits, occupation, and what might be termed social rank. It must also be remembered that the environment could not be changed all at once. Many of the poor seemed to enjoy their insanitary conditions, and preferred the warmth and indecency of one room to the decency and comfort of two or three. The different kinds of houses which would suit various sections of the industrial poor were described in detail. The advantages of the "block" system were great when we came to consider the cost of land in London. Captain Galton said he believed that if London were to be remodelled, nothing better could be done than to follow in the footsteps of the Peabody Trustees. Sir Curtis Lampson, Mr. Mark Judge, and Dr. Poore joined in the general discussion. A resolution was passed to appoint a committee of medical men, architects, and sanitary engineers to make an investigation of the subject of the best methods of housing the poor.

PHTHISIS AMONG COMPOSITORS.

THE London Society of Compositors have called the attention of the trade to the excessive mortality prevailing among the members of their craft. In the quarterly journal of the Union, *The Printer*, statistics are given concerning funeral allowances, which for the year amounted to 74. Out of this number, 22 compositors died from phthisis and 13 from bronchitis, &c., thus giving a total of 35 deaths out of 74 due to diseases of the respiratory organs. Of course, figures given on so small a scale cannot be relied upon; but there is no lack of further evidence to prove the unhealthy nature of the compositor's trade. We are glad, however, to note that the men themselves are beginning to take an intelligent interest in their own position, and that it is a workman who in a workman's paper points out the principal causes of this excessive mortality. The irregularity of the hours of work, the insufficient ventilation of the workshops, and the want of general cleanliness are acknowledged to be the chief factors of evil. The first grievance can hardly be altered, though excessive overwork might be discouraged; on the other hand, ventilation undoubtedly could be improved. In this, however, the workmen must look to their employers and to the inspectors under the Factory Act. They can scarcely be blamed for objecting to the sudden opening of windows, as this is not ventilation, but a violent and often dangerous change of atmosphere. The printing establishments, where there is steam power constantly in use, mechanical—that is, the surest of all—ventilation could be easily applied. As for the third cause, *The Printer* frankly acknowledges the men have only themselves to blame. There is no reason why they should not wash their persons more frequently and take greater pride in the tidiness and general appearance of their workshops. Instead of this, many men do not hesitate to throw the fragments of their meals in some corner, where they remain with other

refuse, till the odour of decomposition becomes absolutely unbearable, and then only is an effort made to clear away the rubbish. In spite, however, of all these shortcomings, when men have reached the point of understanding their own faults they are not far removed from the period of reform. The great difficulty in reducing the danger connected with certain industries has always been the unwillingness of the workmen to adopt the prescribed precautions. Perhaps this is due to the suspicion with which they regard all advice given by the employers, and we therefore conclude that, as the good counsel now comes from a fellow-workman, this fact may be taken as a hopeful symptom.

THE BEDMINSTER BOARD OF GUARDIANS AND THE VACCINATION LAWS.

THE above-named Board, by a majority of eight to six, have rejected a motion to take the ordinary proceedings to enforce the vaccination of a child whose parents have refused to have it vaccinated in accordance with the law. We must leave the Local Government Board to deal with the recalcitrant board. The child in question is that of one of the guardians, who made a speech which was very insulting to medical men, but which it would be a mistake to take too seriously. The name of the gentleman is Mr. Wise, and he reasons with that ease and rapidity which are the privilege of speakers who supply their own premisses. Mr. Wise says cancer, syphilis, and insanity are largely on the increase, which he attributes mainly to vaccination. As it is a free country, Mr. Wise may assume any facts and explanations he pleases. He disposed of the opinion of the medical profession in a sentence. With doctors it is a simple matter of pounds, shillings, and pence. They uphold vaccination because it rolls £100,000 from rates into their pockets. It does not occur to a man like Mr. Wise to consider how much more doctors would roll into their pockets by allowing the public to have small-pox freely. The less polite reason and the more unlikely one naturally occurs to him rather than the obvious and the charitable one.

"THE LUNACY BILL."

A CORRESPONDENT wishes to know "What has become of the Lunacy Bill?" We are not aware of the existence of any such measure, nor do we for a moment believe that a Bill of the class would have any chance of passing during the ensuing session if it were brought in. As to the probability of Lord Cairns moving in the matter, unless that noble lord much belied his opinions by his acts, or rather inaction, when in power, the only Bill he is likely to bring in will be perfectly useless so far as the public are concerned. The truth must be spoken, and it is this. The fate of the insane population is bound in the stiffest and strongest of red tape; the official ban is placed on reform, and until something sensational occurs and public opinion is again aroused Lunacy Law reform, except in the sense of codifying and simplifying the present Acts to save official trouble, is a dead horse which no amount of flogging can bring to life.

BRITISH INFANTICIDE.

WE are approaching that indifference to child-murder which we are accustomed to think confined to unchristian nations. The *Oldham Evening Express* of Jan. 21st announces that some boys while playing saw a cigar-box, the lid of which was nailed down. Thinking that it possibly contained cigars they burst it open, and to their surprise found that it contained the remains of a child, which had been cut into small pieces and wrapped in a piece of calico. The midwife to whom Inspector Bell, of Townfield Police-station, submitted the contents of the box was of opinion that the child had never had an independent existence. Rumour, says our contemporary, has exaggerated the affair so greatly that reports are in circulation to the effect that the mutilated body of a full-grown child five months old has been found. Truth, like fame, may not lie in "broad rumour"; but it must be admitted that the public authorities have not magnified this little occurrence. In most places yet, even in Britain, a child cut up into small pieces would have excited the attention of a coroner and jury, who would have demanded medical light on the question. But in Oldham a policeman and a midwife seem sufficient to satisfy the public conscience.

MICROCOCCI IN EPIDEMIC CEREBRO-SPINAL MENINGITIS.

IN the *Gazzetta degli Ospitali* of Jan. 27th (No. 8, p. 50) E. Marchiafava and E. Celli recall the discovery of micrococci by Klebs and Eberth in meningitis complicating pneumonia, and in traumatic meningitis. They also quote the discovery by Leyden of diplococci in the exudation in a case of primary sporadic cerebro-spinal meningitis, and then proceed to give the result of their search for micrococci in epidemic cerebro-spinal meningitis, cases of which have for some time been frequent in S. Spirito Hospital in Rome. In two cases of the disease the authors were able to make the autopsy a few hours after death, and to conduct the examination of the exudation and of the infiltrated pia mater with all the precautions required for such delicate microscopical researches. Preparations were made from the exudation by drying, and they were coloured with a weak alcoholic solution of methylene blue (turchino di metilene). Micrococci were found in all the preparations, single or in the shape of diplococci of somewhat oval shape. They were free in the intercellular liquid, or included in the protoplasm of the white cells, rarely in that of the endothelial cells. Specimens of blood and splenic pulp from the same bodies, and prepared by a similar process, exhibited no organisms under the microscope.

HOG CHOLERA.

DR. DEDOLPH of St. Paul, Minnesota, alleges that the epidemics of winter cholera in cities, especially the hog cholera and splenic fever of cattle, are due to the consumption of diseased animals. He states that the carcases of diseased animals are sent to the lard factory, and treated by a new patent process, which requires an exposure to a temperature of but 120° F. This, he points out, is far below the degree of heat necessary to destroy bacilli, and although it does not yet appear that micro-organisms have been found in hog cholera, the suggestion adds one more reason for caution in the consumption of "American pork."

SANITATION IN ONTARIO.

AN excellent report has been issued by the National Provincial Board of Health of Ontario on the disposal of sewage and excreta generally. The various systems of dry-closets and pail-closets are referred to and illustrated, and good use is made of Mr. Netten Radcliffe's report on that subject. The question of efficient ventilation of house drains is also entered into, and it is illustrated by means of a diagram which has been lent for the purpose by the State Board of Health of Michigan. Compliance with the principles embodied in that diagram would doubtless lead to an immense improvement in the case of the majority of existing houses, but the details shown are in many respects very inferior to those which have been so carefully illustrated in Knight's annotated edition of the model bye-laws issued by the Local Government Board, and as regards the intercepting trap, the one shown in the diagram is the very one

which here meets with official condemnation on the ground that it is so constructed as to facilitate obstruction, especially by reason of the accumulation of solids which can float up, in a central vertical shaft, into a position whence they cannot well be removed.

SUICIDE OF A SCHOOLBOY.

WE have elsewhere spoken of the need of special medical supervision of schools with the intent of saving the brains of poor children who are not capable of doing the average amount of difficult head work. A boy of twelve is reported to have hanged himself in a fit of depression or vexation caused by his inability to "pass" in a Board School for the fifth standard. It would seem that this poor lad was driven a great deal and altogether hard pressed by his school master. It is in its effects on the teachers that our system of competitive results proves most mischievous. School teachers with very little brain-power of their own, and with pitifully irritable tempers, hurry and worry their pupils until the little brains are worn and muddled far more by the teaching to which they are subjected than the learning required of them. This is a point medical inspectors would be better able to elucidate than mere inspectors of results, who form their opinions entirely upon the answers they get out of the children without the least knowledge, or even recognition, of the brain-work by which the facility of giving such answers has been acquired.

FIRST CONVICTION UNDER THE DENTISTS ACT OF 1878.

ON the 6th inst., at the West Ham police-court, judgment was given in a case of considerable interest to the profession. The defendant, a chemist and dentist, was summoned by the honorary secretary of the British Dental Association for having, on Nov. 14th last, used the initials "L.D.S.," being the distinction of a qualification or certificate in relation to dentistry or dental surgery which he did not possess, contrary to Section 4 of the Dental Act, 1878, 41 and 42 Vic., cap. 33. The defendant is a L.D.S. of Ontario, but registration on the strength of that certificate having been refused, he was registered as having been in practice before July 24th, 1878. The prosecution contended that by the use of the simple "L.D.S." without the affix "Ont.," or "Ontario," the defendant had made himself amenable to the Act. The magistrate took this view of the question; but, taking into account that this was the first case under the Act, and having regard to the fact that defendant was a "L.D.S.," though of Ontario, he did not impose the full penalty of £20, but a fine of £2 and the usual costs.

JEQUIRITY POISONING OF FOWLS.

AS a continuation of their work on jequirity MM. Cornil and Berlioz have recently read before the Académie de Médecine a further contribution on the effect of the bacilli of jequirity on fowls. A single injection of ten to twenty drops of the infusion into the subcutaneous connective tissue of the breast produces a rapid poisoning, terminating in death, the chief symptom being copious diarrhœa. The liquid stools contain numbers of the bacilli. The skin becomes infiltrated with a clear liquid, which abounds in bacilli; the great pectoral muscle becomes voluminous, as happens after an injection containing the microbe of the cholera of fowls. Microscopical examination of the muscle shows transverse ruptures and necrobiosis of the muscle fibres, with infiltration of the connective tissue by fibrin and lymphatic cells, just as in the cholera of fowls. With an injection of a small quantity the fowls remain alive, though a local œdema, with damage of the neighbouring muscle, is produced, but immunity is acquired. A fresh injection into the peritoneal cavity seems to be partly eliminated by the previously induced local mischief. The lesions set up by the microbes continue to evolve apparently after the complete elimination of the micro-organisms.

THE BOILING-POINT OF OXYGEN.

OUR knowledge of the liquid and solid states of the bodies so long known as the permanent gases is increasing rapidly. M. Wroblewski has succeeded in producing both liquid and solid oxygen in considerable quantity, and is now engaged in trying its effect in the liquefaction of hydrogen. Liquid oxygen is colourless and transparent. It boils at −186° C. (−303° F.), and freezes into crystals, which adhere to the surface of the vessel. Its critical temperature at a pressure of 50 atmospheres is −113° C. (−171° F.). When nitrogen is exposed under pressure to the low temperature of boiling oxygen, it freezes in crystals of remarkable size and beauty. Ozone, it will be remembered, condenses easily into a blue liquid, which gives a very beautiful blue vapour; in this liquid state it decomposes easily and with explosion.

TOXIC ACTION OF COPPER.

IT seems to grow more and more doubtful whether copper can be reckoned among the poisonous metals. Of course in large quantities it is noxious; but this is true of alcohol and of many other compounds, which cannot fairly be considered as poisons. The latest experiments tend to indicate that, at any rate, copper is not a cumulative poison, like lead. MM. Houlès and De Pietra Santa, in a recent communication addressed to the Académie des Sciences of Paris, report that they have been unable to discover any injurious action on the health of the workmen engaged in the copper industry, and have come to the conclusion that the so-called "colique de cuivre," asserted in the eighteenth century to be a definite disease, does not exist.

WOOLWICH MILITARY MEDICAL SOCIETY.

AT the last meeting of this Society, in January, Surgeon-Major Godwin read a paper on "Antiseptic Surgery and its application to Field Service," and it has been thought advisable to devote a night to its full discussion, as its importance is so great, and it would perhaps, if in some way systematised, be more generally followed in the medical management of any future campaign. Sir Joseph Lister, Professor Longmore, and several surgeons from London are expected to take part in the debate, which is fixed for the 15th inst., at the Army Medical Department Mess-room. The meeting will commence at 8.30 P.M.

BACILLI OF CHOLERA.

PROFESSOR JOHN MARSHALL, F.R.S., will read a communication from M. Straus of Paris at the next meeting of the Royal Medical and Chirurgical Society, to be held on Tuesday, February 12th. M. Straus is the chief of the French scientific commission sent to Egypt to investigate the recent epidemic of cholera. He has placed at Professor Marshall's disposal some microscopical specimens of the bacilli of cholera, which will be exhibited at the meeting in question.

ANOTHER MICRO-ORGANISM.

IT has frequently been conjectured that the disease known as beri-beri would be found to be of a parasitic nature. If we may place any reliance on the experiments of M. de Lacerda, this conjecture would appear to be now established as a fact. Examinations of drops of blood from individuals suffering from the affection revealed the presence of long

cylindrical branched filaments, with genuine joints, and sometimes with refracting brilliant points, which are believed to be spores. These filaments have been cultivated in bouillons prepared after Pasteur's method with all the proper precautions. Rabbits have been inoculated from the artificial cultures and have succumbed with all the symptoms of beri-beri. The microscope has shown the organisms in the blood, urine, muscles, and spinal cord of the rabbits. M. de Lacerda believes that the parasite is originally obtained from rice which has undergone a peculiar alteration.

DR. THEODORE WILLIAMS.

DR. CHARLES THEODORE WILLIAMS has gone through a severe attack of typhoid fever at his father's villa at Cannes, which supervened two days after his arrival from Naples. It became fully developed, with the temperature rising at times above 104° and 103° for the first two weeks, with severe abdominal symptoms. These were mitigated in the third week, but the temperature did not fall to normal till February 2nd—i.e., about the twenty-first day of continued fever. Since then he has been free from fever, but is necessarily much reduced. As he is able to take nutriment and tonics, and has good sleep at night, it is hoped that he is in a fair way to convalescence.

DISCUSSION ON ALBUMINURIA IN GLASGOW.

WE understand that the Glasgow Pathological and Clinical Society have arranged for a discussion on "Albuminuria: its Pathology and Clinical Significance," to be held in the hall of the Faculty of Physicians and Surgeons, on Feb. 12th and 19th, at 8 o'clock P.M. Dr. Roberts of Manchester, Professor Hamilton of Aberdeen, Dr. Mahomed of London, and Professor Greenfield of Edinburgh are expected, with the members of the Society, to conduct the discussion. The meetings will be open to all medical gentlemen, but those who intend to be present are requested to send their cards to Dr. David Newman, 18, Woodside-place, Glasgow, the secretary of the Society.

THE EXAMINATIONS FOR THE PUBLIC MEDICAL SERVICES.

THE competitive examinations for the admission of medical officers into the army, navy, and Indian medical services have been conducted at Burlington House during the past week. There appears to be no lack of candidates for any of these branches of the public service. The number of vacancies to be filled up, as announced in the advertisements, were 20 in the army, 13 in the navy, and 5 in the Indian medical service, while the number of men who presented themselves for examination was 58 for the army, 33 for the navy, and 21 for the Indian service. Total 112, being in the proportion of three candidates for each vacancy.

PRISON SURGEONS.

IT was with gratification that on a recent occasion we referred to an official commendation of the services of prison surgeons, and we have now a further proof that the medical branch of the convict department is reaping the reward which has been so long withheld from it. The Home Secretary has directed that the prison at Woking for male invalids and lunatics shall be combined with the prison for females, and that Dr. Vans Clarke, now governor and medical officer of the latter, shall have the united charge. Dr. Clarke's services have earned this high position, and the appointment constitutes a prize to which medical officers are in future to aspire.

MR. H. GRAY CROLY, of Dublin, met with a very flattering reception last Tuesday from the students of the City of Dublin Hospital, who attended in large numbers to present him with an address of congratulation on his recovery from a long and dangerous illness. The address was handsomely engrossed on parchment, and was signed by the house-surgeon and by about eighty students on behalf of those attending the hospital. The valuable clinical instruction given by Mr. Croly at this hospital has been appreciated not alone by the students attending his class, but also by a large number of practitioners who regard him as an accomplished surgeon, a brilliant operator, and sound teacher.

A "Dictionary of Practical Surgery" is, we understand, in preparation, and is to be published by Messrs. Smith, Elder, and Co. within two years from the present time. The work will be produced on the lines of "Quain's Dictionary of Medicine," and will be edited by Mr. Christopher Heath.

THE medical students of the Swiss universities are thus distributed: Basle, 108; Berne, 127 males and 28 females; Zurich, 184 males and 33 females; Geneva, 84 males and 7 females. Only five of the women are Swiss, and all the others Russian.

THE conclusions drawn from his experiments on man and animals by M. Paul Bert on the production of anæsthesia by a definite admixture of chloroform vapour and air seem to have aroused as much opposition at the Académie des Sciences as they did recently in England.

THE Privy Council is, it is stated, to be asked to receive a deputation from the Pharmaceutical Association in conjunction with the Chemists and Druggists' Trade Association in support of the Bill in the hands of the Government to amend the Pharmacy Act.

THE newly instituted chairs of Practice of Medicine and Pathology and Morbid Anatomy at the Otago University, New Zealand, have been filled, the former by Dr. Daniel Colquhoun, late of Charing-cross Hospital, and the latter by Dr. Mackellar, of Glasgow.

THE Russian Government has conferred on Professor Frerichs the grand cordon of S. Stanislaus, in recognition of his services in connexion with the education of Russian students in the Universities of Breslau and Berlin.

THE subject of the lectures to be delivered in Gresham College, on February 12th, 13th, 14th, and 15th, by E. Symes Thompson, M.D., F.R.C.P., will be the International Health Exhibition of 1884.

THE discussion on trichinosis in relation to the introduction of pork from America, and also in regard to its pathological affinities with typhoid fever, still occupies the attention of the Académie de Médecine.

MR. R. P. WILLIAMS, L.R.C.P. Edin., of Holyhead, was on the 28th ult. acquitted on the charge of conspiracy to defraud the Royal Liver Friendly Society.

IT is stated that the Brighton Town Council intend to seek Parliamentary powers to compel medical men to notify to them the existence of all cases of infectious disease.

THE death of Dr. Robert Beales, of Congleton, J.P. for Chester county, took place very suddenly on the 3rd inst. Dr. Beales had been three times mayor of Congleton.

METROPOLITAN SEWAGE DISCHARGE.

THE Royal Commission on Metropolitan Sewage Discharge appointed in 1882 to inquire into the system under which sewage is discharged into the Thames by the Metropolitan Board of Works has just issued its first report. We can this week only give a summary of the general conclusions arrived at, which are as follows:—

"1. That the works of the Metropolitan Board for the purpose of carrying the sewage of London to the respective outfalls at Barking Creek and Crossness have been executed in a highly creditable manner, and have been of great benefit to the metropolis.

"2. That the storm overflows allow the occasional discharge into the river within the metropolis of considerable quantities of solid fæcal matter accumulated in some of the sewers; but this has not caused, under present circumstances, serious damage or offence.

"3. That the sewage from the northern outfall is discharged partly over the foreshore, and not, as was originally intended, 'through submerged pipes terminating below low-water mark,' this arrangement increasing the risk of nuisance from the discharge.

"4. That the discharge of the sewage in its crude state during the whole year, without any attempt to render it less offensive by separating the solids or otherwise, is at variance with the original intention and with the understanding in Parliament when the Act of 1858 was passed.

"5. That the discharge from the main outfalls becomes very widely distributed by the motions of the water both up and down the river, being traced in dry seasons through the metropolis and almost as high as Teddington; and that it oscillates for a long period before getting finally out to sea.

"6. That the dilution of the sewage by the land and sea water, aided by the agitation produced by the various motions in the river, effects a partial purification of the sewage by oxidation; and that this purification is carried further by the action of animal and vegetable organisms.

"7. That the sewage which becomes distributed to the higher and to the lower portions of the river thus gradually loses its offensive properties. The limits above and below the outfalls where this purification becomes efficient vary with the meteorological conditions, but it may be stated that in general above Greenwich and below Greenhithe the river does not afford ground for serious complaint.

"8. That between these limits the effects of the sewage discharge are more or less apparent at all times.

"9. That in dry seasons the dilution of the sewage is scanty and ineffective, especially at neap tides.

"10. That it does not appear that hitherto the sewage discharge has had any seriously prejudicial effect on the general healthiness of the neighbouring districts; but that there is evidence of certain evil effects of a minor kind on the health of persons employed on the river, and that there may reasonably be anxiety on the subject for the future.

"11. That in hot and dry weather there is serious nuisance and inconvenience, extending to a considerable distance both below and above the outfalls, from the foul state of the water consequent on the sewage discharge. The smell is very offensive, and the water is at times unusable.

"12. That foul mud, partly composed of sewage matter, accumulates at Erith and elsewhere, and adheres to nets, anchors, and other objects dropped into it.

"13. That sand dredged near the outfalls, which used to be obtained in a pure state, is now found to be so much contaminated with sewage matter as to be unusable, compelling the dredgers to go further away.

"14. That for these reasons the river is not at times in the state in which such an important highway to a great capital carrying so large a traffic ought to be.

"15. That in consequence of the sewage discharge fish have disappeared from the Thames for a distance of some fifteen miles below the outfalls and for a considerable distance above them.

"16. That there is some evidence that wells in the neighbourhood of the Thames are affected by the water in the river, and although there is no proof of actual injury due to the sewage that anxiety may be felt on that point.

"17. That there is no evidence of any evil results to the navigation of the river by deposits from the sewage discharge, but that this discharge adds largely to the quantity of detritus in the river, and so must increase the tendency to deposit.

"18. That the evils and dangers are likely to increase with the increase of population in the districts drained.

"19. That it is desirable we should inquire further 'what measures can be applied for remedying or preventing' the evils and dangers resulting from the sewage discharge.

"20. That before we proceed to this further branch of our inquiry we should allow some time for the consideration of this our first report, and of the remedies which may be suggested for the evils we have pointed out."

The report is signed by the following Commissioners, Sir P. Benson Maxwell's name being absent, owing to his being on service in Egypt:—

"BRAMWELL. "F. S. B. F. DE CHAUMONT.
"JOHN COODE. "THOMAS STEVENSON.
"C. B. EWART. "JAMES ABERNETHY.
"ALEX. W. WILLIAMSON.
"Jan. 31st, 1884." "William Pole, *Secretary*.

SEX AND AGE PROPORTION OF THE INSANE.

THE recently issued Census Report furnishes some useful statistics bearing upon the numbers of the insane enumerated in England and Wales in 1881, and their sex and age proportions; the term insanity being used to signify all kinds of mental unsoundness, and to include congenital idiocy, lunacy, and imbecility. The number of persons returned as suffering from all kinds of mental unsoundness at the last Census was 84,503, being in the proportion of 3253 per million of the population, while at the preceding Census, in 1871, the proportion did not exceed 3034; and this proportion showed a similar increase upon that recorded in 1861. Thus the proportion of the recorded insane in the English population was rather more than 7 per cent. greater in 1881 than in 1871. Whether these figures imply a real increase of insanity is a problem full of interest, and one of which the solution, says the Census Report, must be "sought outside the Census returns." It is stated that the increase of the insane, in the largest sense of that term, was confined to the lunatics, or those suffering from the comparatively acute forms of unsoundness, no increase being shown in the numbers returned as idiot or imbecile. Part of the increase of recorded lunacy has been attributed to "diminished unwillingness on the part of persons to admit the existence of insanity in their families." It seems, however, more than probable that this apparent increase is mainly due to the increasing proportion of the insane retained in public and private asylums, which not only secures the more complete record of the insane in the Census returns, but, by reducing the death-rate of the insane, inevitably causes an increase in the proportion of the insane population. On the other hand, a much larger proportion of idiots and imbeciles remain at home with their families, thus affording facilities for concealment when the householders' schedules are filled in at Census enumerations. But to refer to the insane of all classes, of the 84,503 enumerated at the last Census, 39,789 were males, and 44,714 females. These numbers were in the proportion of 3148 males and 3353 females per million living of each sex. While, however, of equal numbers living of each sex, and at all ages, the proportion of insane is greater among females than among males, the report points out that this does not necessarily imply that females are more liable to insanity than males. Bearing in mind the marked excess of mortality among the male insane, compared with that which prevails among the female insane, it is easy to believe "that mental disease attacks a larger proportion of males than of females," although the proportion of the insane living at each Census enumeration is greater among females than among males. This hypothesis is supported by a useful table, showing the proportion of the insane, the lunatic, and the idiot or imbecile, per million of males and females respectively, at seven successive age periods. This table shows that up to forty-five years of age the proportion of the insane of all classes is higher among males than among females, whereas after forty-five there is a steadily increasing excess in the proportion of female over that of male insanity. Based upon the mean discharge-rate among the male and female lunatics dealt with in the reports

of the Lunacy Commissioners for the ten years 1872–81, it is calculated by the Census Commissioners that in order to maintain the relative proportion of the male and female insane enumerated in 1881, the proportion of new cases of insanity occurring in an equal number of each sex would have to be 106·8 among males to each 100 among females. These figures are suggested as "probably representing with approximate accuracy the comparative liability of the two sexes, irrespective of age differences, to mental unsoundness." It appears to be established, therefore, that in a certain sense, the excessive proportion of the insane in the female compared with that in the male population is due to what has been called "accumulation," and is mainly the result of the higher death-rate among the male insane. Further investigation will doubtless also prove that much of the recorded increase of insanity is also due to "accumulation," arising from the decreasing death-rate of the insane, caused by the constant increase of their proportion treated in asylums.

HEALTH OF RANGOON.

IN the end of June, 1882, the first elected municipal committee of Rangoon came into office. It appears to consist of fifteen members chosen as representatives by the different sections of the community, and six appointed *ex officio* by the local Government. Their first report for the year 1882–83 has just been published, and affords a good deal of information respecting the finance and social condition of the municipality. In October, 1882, Dr. Griffith resigned the post of health officer, and was succeeded by Dr. T. F. Pedley, by whom that portion of the report relating to the sanitary condition of the town has been prepared. The information regarding the mortality is most unsatisfactory owing to the very deficient system of registration. The new municipal committee have, however, taken this matter in hand, and it is to be hoped that they will devise measures to secure accurate returns of births and deaths. So far as the returns can be relied upon at present, upwards of one-third of the deaths were due to fever, bowel complaints being the next in frequency. The deaths from cholera amounted to only about 7 in 10,000 of the estimated population. Some very important works have been in progress in connexion with the water-supply of Rangoon, and if the expectations of the executive engineer have been realised, it must ere this have an almost unlimited supply of pure water. But the drainage of the town is in a very unsatisfactory state, and will require to be completely remodelled on the completion of the waterworks. In addition to this, as a cause of disease, there appears to be a great amount of overcrowding, especially in the parts of the town occupied by the natives. The houses used as barracks by the Madras coolies "are always reeking with filth, and generally are the centres of the nuisance, bad smells, and disease of their neighbourhood. The houses do not really come under the legal definition of lodging-house, and therefore are not affected by those bye-laws." It is evident that in this direction the new municipal body may, with great advantage, strengthen the hands of the health officer by a revision of these inefficient bye-laws. The streets and the town lands also appear to require great improvement, and an efficient police force is much wanted to enforce the bye-laws, which have hitherto been to a great extent dead letters. The president of the committee says: "The state of the Rangoon police does not, by any means, inspire public confidence," and he expresses a hope that European constables and Sikhs in the native force may be soon employed, instead of men from the lower provinces of India. If the new municipal body carry out these much-needed reforms, we may confidently look for a marked improvement in the sanitary condition of the population.

SOCIETY OF CHEMICAL INDUSTRY.

AT the opening of the session of the Newcastle section of this Society, the chairman, Mr. B. S. Proctor, in his inaugural address, sketched the work which has come before the Newcastle Chemical Society as indicating the progress of chemical technology during the last fourteen years. After discoursing upon those points which have a special interest to technologists of his own neighbourhood, he devoted the latter part of his address to the germ theory of disease and the question of public health. Whatever may be said of sewage irrigation, sewer ventilation, &c., passages like the following, coming from the chair of a scientific Society, indicate the activity of public thought on these subjects:—"From the time of Tyndall's experiments on a moteless atmosphere to the present the medical periodicals have been full of disease germs and swarming with infusorial life. The battle of the bacilli has been continually before us, and is growing in strength. We are endeavouring to combat the germs of disease by cultivating the disease of germs. We are learning to destroy their virulence by having recourse to circumstances which prevent their healthy development, such as fresh air and antiseptics." Further on he remarked: "Though Pasteur modified his virus by the action of time and air, it is not to be supposed that oxygen is the only agent which can reduce their [germs] virulence. It is unquestionably the most important agent, and one that should never be neglected. The ventilation of sick rooms and the ventilation of sewers are duties owed by every individual and every corporation to the community. But a more radical change is probably required before the battle of the bacilli can be terminated in favour of man. It is not safe to conclude that a nuisance hidden, an evil smell got rid of, has removed the danger." Again, alluding to the observations of Pasteur and Frankland, and the bearing these have upon the dangers which may result from sewage irrigation, he asked: "Can we educate the microzoa in the principles of vegetarianism? Can we teach them to be herbivorous and no longer to prey upon their neighbours in the animal kingdom? To do this we must banish putrefaction from the animal kingdom. Cremation must take the place of burial, and not of burial only, but of sewage also. Before we do this we must educate, not the bacteria, but society. The individual must learn to do no injury to his neighbour either in life or death; nor should his feelings, his sentiments regarding departed friends, stand in the way of doing his duty towards those who remain. Good would result not only from the substitution of cremation for the burial of the dead, but from requiring every species and every fragment of putrescible matter to be treated in a similar way—to be put under the protection of antiseptics till the quantity had so accumulated as to be worth submitting to destructive distillation."

MEDICAL TRIALS.

THE UNQUALIFIED SURGEON'S CERTIFICATE QUESTION.

ON Friday, Feb. 1st, at Littledean Police-court, Dean Forest, Henry Stubb Fletcher, Surgeon, of Lydbrook, near Ross, was summoned by Mr. F. Carter, the district superintendent registrar of Westbury-on-Severn Union, under section 40, subsection 2, of the Registration Act, 1874, for unlawfully giving a certificate of death contrary to the provisions of the Act.

The Solicitor for the prosecution, in opening the case, said the facts were briefly as follows. A Mrs. Dawe resided at Longhope, within the district of the Westbury-on-Severn Union, and had been attended for a long time by a Mr. Chate, an unqualified man, who acted for Mr. Fletcher. Mr. Chate saw the woman on Jan. 1st. She had suffered for many years from an ulcerated leg. On Jan. 4th a brother of Mrs. Dawe waited upon Mr. Chate, stating that his sister was dead, and asked him for the necessary certificate of death in order that it might be handed to the district registrar. Mr. Chate acceded, and the certificate, signed by Mr. Fletcher, the defendant, was accordingly handed to Mr. Wherratt, the registrar. The latter called the attention of the superintendent registrar to the matter, who in due course communicated with the Registrar-General, who ordered the present prosecution.

Frederick Wherratt, registrar of births and deaths for the district of Huntley, stated that he received the certificate produced from the brother of Elizabeth Dawe, deceased, of Longhope, and he handed it to the superintendent registrar for Westbury-on-Severn Union.

Mr. M. F. Carter deposed that he was the superintendent registrar for the district named, and he received the certificate

produced. The signature was in the handwriting of Mr. Fletcher. He reported the case to the guardians of Westbury-on-Severn Union, and subsequently, under orders of the Board, to the Registrar-General, under whose instructions these proceedings were taken. In cross-examination, he stated that on the 26th ult. Mr. Chate waited upon him (Mr. Carter), and said that he (Chate) was entirely to blame in the matter, and not Mr. Fletcher; and that he should like to make a statement, which he (witness) offered to receive in writing and forward to the Registrar-General. A statement was then prepared to the effect that on Jan. 4th one of the brothers of the deceased came to him (Chate) for a certificate, and at that time he happened to have two certificates in blank, but which had been signed by Mr. Fletcher, with authority to fill them up in any case he might be attending on Mr. Fletcher's behalf where death might occur. He accordingly filled up one of the certificates and handed it to the said brother. He so used the said certificate in good faith, and believed that he was not acting wrongly.

Samuel Dawe stated he was brother of the deceased, and that shortly before her death he called upon Mr. Chate to see her. He had never seen Mr. Fletcher before to-day.

Mr. Egbert G. Chate, examined by Mr. Hebb for the defence, stated that last summer he asked Mr. Fletcher for a certificate for a patient of his (Mr. Fletcher's) whom he (witness) was attending. He had forgotten the name. The patient recovered, and the certificate was not required. The document produced was the one in question. He kept it by him and used it in the case of Mrs. Dawe. Mr. Fletcher had never seen the woman. He did not attend Mrs. Dawe on Mr. Fletcher's behalf. He filled up his certificate without thought and gave it to the man Dawe.

This concluded the defence, when Mr. Hebb addressed the justices, and, referring to the circumstances under which the certificate passed into the hands of Mr. Chate, stated that his client had given no authority whatever to Mr. Chate to either retain the certificate or use it in respect to the death of the woman Dawe, whom Mr. Fletcher had never seen.

The Chairman said they were quite unanimous that the case had been proved, and as the law enabled them to adjudicate in such charges they intended to do so with leniency. Mr. Fletcher would be convicted in a penalty of 40*s.*, and the Bench hoped it would be a warning both to himself and Mr. Chate.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Huddersfield (Urban).—A report recently issued by the medical officer of health (Dr. Cameron) for this urban sanitary district shows that during the last thirteen weeks of 1883 the birth-rate was equal to 32·2 and the death-rate to 21·0 per 1000 of the population, estimated at 84,701 persons in the middle of the year. The birth-rate shows a slight increase upon the mean rate in recent corresponding quarters, whereas the death-rate was 1·5 below the mean rate in the corresponding quarters of the six years 1877-82. Although the death-rate from all causes was low, that due to the principal zymotic diseases showed an excess. The deaths referred to these diseases, which had averaged but 26 in the first three quarters of the year, rose to 62 in the last quarter, of which 33 resulted from whooping-cough and 20 from measles. The greatest fatality of whooping-cough occurred in the central district of the town. Only one death from scarlet fever was recorded during the quarter, although 28 cases were notified, of which 16 were admitted to the hospital for infectious diseases. Further evidence of the advantage derived from the joint operation of notification and hospital isolation is afforded by the fact that 8 cases of diphtheria were reported, of which 7 were removed to the hospital, not a single death resulting from this disease. We have again to protest against the useless attempt to measure the mortality at different groups of ages by the numbers living at all ages. The report says: "The death-rate in children under the age of one was 5 68 per 1000 persons living at all ages; of those between one and five years 4·22, while in persons over fifty it was 5·12." It should not now be necessary to point out that mortality at groups of ages can only be correctly measured by the numbers living at the same groups of ages; any other mode of calculation is not only useless, but misleading. Diseases of the respiratory organs were exceptionally fatal in Huddersfield during last quarter, and caused a death-rate of 7·4 per 1000, more than a third of the mortality from all causes.

Exeter.—The medical officers to the Exeter Sanatorium, in their last report, call attention to the increasing appreciation in which the institution is held, as evidenced by the larger number of patients who willingly come there for isolation both from the city and the surrounding neighbourhood. The cases isolated have included typhoid and scarlet fever, measles, rötheln, diphtheria, and small-pox.

St. Giles's District.—The last annual report of the medical officer of health for this important metropolitan district, with an estimated population of 46,732, contains certain statistics giving, among other things, the rate of mortality as 24 per 1000, and specifying the number of zymotic deaths; it records certain rules and regulations as to a mortuary; it refers to the Hospitals Commission, to the work done by the sanitary inspectors, and to a few other matters; but it hardly contains a word as to the conditions under which the people are living and which need improvement, nor is there any record of advice given to the vestry as to their sanitary work in the future; indeed, there is no statement showing what the work of the medical officer of health has been.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5723 births and 3448 deaths were registered during the week ending the 2nd inst. The annual death-rate in these towns, which had steadily declined in the four preceding weeks from 22·2 to 20·3, was last week 20·5. During the first five weeks of the current quarter the death-rate in these towns did not average more than 20·9, whereas in the corresponding periods of the four years 1880–83, the rates ranged from 28·2 to 22·7. The lowest rates in these towns last week were 13·1 in Derby, 13·4 in Cardiff, 14·9 in Leicester, and 16·1 in Birkenhead. The rates in the other towns ranged upwards to 24·1 in Newcastle-upon-Tyne, 24·9 in Leeds, 25·8 in Sunderland, and 28·1 in Oldham. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 460 and 418 in the two previous weeks, were 419 last week; they included 126 from whooping-cough, 101 from scarlet fever, 75 from measles, 38 from "fever" (principally enteric), 36 from diphtheria, 29 from diarrhœa, and 14 from small-pox. No death from any of these zymotic diseases was registered last week either in Norwich, Halifax, or Huddersfield; whereas they caused the highest death-rates in Leeds and Salford. The highest death-rates from whooping-cough occurred in Bolton, Manchester, and Newcastle-upon-Tyne; from scarlet fever in Leeds and Sheffield; and from measles in Salford and Derby. The 36 deaths from diphtheria in the twenty-eight towns included 23 in London, 3 in Leeds, 3 in Hull, and 2 in Birmingham. Small-pox caused 7 deaths in Birmingham, 3 in Liverpool, 2 in Sunderland, and 1 both in London and in Wolverhampton. The number of small-pox patients in the metropolitan asylum hospitals, which had been 102 and 104 on the two preceding Saturdays, further rose to 110 at the end of last week; 28 new cases were admitted to these hospitals during the week, against 9 and 19 in the two previous weeks. The Highgate Small-pox Hospital contained 5 patients on Saturday last, 2 new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 395 and 360 in the two preceding weeks, were 367 last week, and no fewer than 281 below the corrected average. The causes of 82, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Derby, and Preston. The proportions of uncertified deaths were largest in Oldham, Birkenhead, Salford, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 22·0 and 20·1 per 1000 in the two previous weeks, rose again to 22·4 in the week ending the

2nd inst.; this rate exceeded by 1·9 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 16·3 and 20·0 in Dundee and Greenock, to 23·5 in Glasgow and 27·6 in Aberdeen. The deaths in the eight towns included 67 which were referred to the principal zymotic diseases, against 87 and 74 in the two preceding weeks; 21 resulted from whooping-cough, 20 from diarrhœa, 8 from measles, 7 from "fever," 6 from diphtheria, 5 from scarlet fever, and not one from small-pox. These 67 deaths were equal to an annual rate of 2·8 per 1000, which was 0·3 above the mean rate from the same diseases in the large English towns. The rates from these diseases in the Scotch towns ranged last week from 0·0 in Greenock and Perth, to 3·6 and 3·8 in Paisley and Edinburgh. The fatal cases of whooping-cough, which had been 22 and 23 in the two previous weeks, were 21 last week, of which 15 occurred in Glasgow and 3 in Edinburgh. The 20 deaths attributed to diarrhœa showed an increase upon recent weekly numbers, and included 9 in Glasgow and 5 in Edinburgh. The 8 fatal cases of measles showed a decline of 6 from the number in the previous week; 6 were returned in Edinburgh and 2 in Paisley. Measles has shown more or less fatal prevalence in Edinburgh since April last, no fewer than 163 deaths having resulted therefrom since that date. The 7 deaths referred to "fever" in the eight towns last week included 4 in Glasgow and 2 in Edinburgh; and the 5 fatal cases of scarlet fever, 3 in Glasgow and 2 in Edinburgh. Three deaths were referred to diphtheria in Dundee and 2 in Glasgow. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had declined from 145 to 91 in the four previous weeks, rose again to 111 last week, but were no fewer than 42 below the number in the corresponding week of last year. The causes of 91, or nearly 17 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had steadily declined in the first four weeks of this year from 28·7 to 24·5 per 1000, rose to 29·7 in the week ending the 2nd inst. During the first five weeks of the current quarter the death-rate in the city averaged 27·4 per 1000, against 20·4 in London and 20·3 in Edinburgh. The 200 deaths in Dublin last week showed an increase of 35 upon the number in the previous week; they included 6 which were referred to "fever" (including typhus, enteric, and simple continued), 5 to scarlet fever, 2 to diphtheria, 1 to diarrhœa, and not one either to small-pox, measles, or whooping-cough. Thus 14 deaths resulted from these principal zymotic diseases, against 23, 19, and 13 in the three preceding weeks; they were equal to an annual rate of 2·1 per 1000, while the rate from the same diseases was 2·5 in London and 3·8 in Edinburgh. The fatal cases of "fever" showed an increase of 3 upon the number in the previous week; while those of scarlet fever showed no variation. The 2 deaths referred to diphtheria raised the number recorded since the beginning of the year to 6. Four deaths were referred to different forms of violence. The deaths both of infants and of elderly persons showed a marked increase upon recent weekly numbers; and the deaths recorded in public institutions were also considerably more numerous. The causes of 27, or more than 13 per cent., of the deaths registered during the week were not certified.

VITAL STATISTICS OF THE PEABODY BUILDINGS.

The trustees of the Peabody Donation Fund have just issued their nineteenth annual report, from which it appears that the half million of money given by Mr. Peabody for the benefit of the poor had grown to £829,864 at the end of last year, while the number of residents in the buildings already provided through the operation of the fund exceeds 18,000. Before the end of the year a considerable further increase of improved dwellings will be ready for occupation in various parts of the metropolis. These 18,000 persons are living in 4359 tenements; 2073 of two rooms, 1521 of three rooms, 692 of one room, and 73 of four rooms. The mean rental of each tenement is 4*s.* 8*d.*, and of each room 2*s.* 1*d.* The average weekly earnings of the head of each family in residence at the close of the year is said to have been rather less than 24*s.*, which seems to show that the tenants mainly belong to the poorer of the working classes. The vital statistics of this population given in the report are few. The birth-rate during last year was 41·8 per 1000, and exceeded by 8·0 the mean rate for all London; this rate, however, is not high when the abnormal age distribution of the population is taken into account. The recorded death-rate of the Peabody population was 18·6, which is stated to be 1·77 per 1000 below the mean rate for the whole of London. No allusion is, however, made to the fact that the Peabody rate takes no account of deaths of residents recorded in hospitals, workhouse establishments, or lunatic asylums. Now, 16·2 per cent., or more than a sixth of the total deaths in London in 1883, were recorded in such institutions; these deaths being equal to a rate of 3·4 per 1000 of the population. It should be remembered that, if an equivalent addition were made to the Peabody death-rate, this would be raised above the general rate for London. That some such correction is necessary in order to arrive at the true death-rate of the Peabody residents appears the more certain from the fact that infant mortality in these buildings, measured by the proportion of deaths under one year of age to births registered, was equal to 155·7 per 1000, and exceeded the general rate in all London by 10 per 1000. It is perhaps expecting too much from the operation of improved dwellings to hope for the mortality statistics of 18,000 of the poorer of the working classes to compare favourably with those for the whole of London. The importance of the subject is, however, so great that we should be glad if the trustees could see their way to give more detailed vital statistics of the population living under their control. It should, at the same time, be borne in mind that the *gross* death-rate of the population of these dwellings, on account of its very abnormal age distribution, is not a trustworthy test of its health condition. The death-rate at different groups of ages should also be given.

MORTALITY STATISTICS OF GERMAN CITIES.

It is now more than seven years since the German Government commenced the publication of a weekly return of the vital statistics relating to all the cities of the German Empire, having a population exceeding 15,000 persons. The aggregate population of the 172 towns dealt with in this list is estimated at 8,688,664 persons, differing but slightly from the aggregate population of the twenty-eight large English towns dealt with in the Registrar-General's weekly return, although the smallest town in our list had a population exceeding 70,000 at the census in 1881. In many respects the statistics in the German return are given in greater detail than those in the English return; and it is certainly regrettable that, as regards English towns having smaller populations than 70,000, no official statistics are published, whereas the German weekly return keeps the central health authority constantly informed of the health condition of all towns having populations exceeding 15,000. The health of all German towns, judged by the mortality statistics in these returns, compares, however, unfavourably with that of the largest English towns. In the first three weeks of this year the annual death-rate in the 172 German cities averaged 24·9 per 1000, whereas it did not exceed 21·3 in the English towns; the German urban mortality thus exceeded the English urban mortality by 13 per cent., or more than a seventh. The most remarkable feature of these German mortality statistics is the high death-rate from diphtheria, which is by far the most fatal zymotic disease in these towns. The mean annual death-rate from diphtheria (Rachen-diphtherie) in these German towns averaged 1·36 per 1000 during the first three weeks of this year, while in the English towns it did not exceed 0·18, or less than a seventh of that prevailing in the German towns. Diphtheria in the German towns is just now more than three times as fatal as any other zymotic disease.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Charles Edward Wikeley is granted retired pay; Surgeon Charles Reid, M.D., has been removed from the Army in consequence of ill-health.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon John T. Comerford to the *Malabar*, vice Hanbury; Surgeon W. F. Spencer, to the *Hibernia*, vice Preston; Surgeon B. C. E. F. Gunn, to the *Alexandra*, vice Spencer; Robert Laidlaw, to be Surgeon and Agent at Elie, vice Kennedy; Colin M'Callum, to be Surgeon and Agent at Anstruther; Staff Surgeon Frederick M'Clement, to the *Revenge*, vice George Bolster.

Correspondence.

"Audi alteram partem."

THE INSANITARY CONDITION OF CONTINENTAL HEALTH RESORTS.

To the Editor of THE LANCET.

SIR,—Most of your readers have doubtless seen with regret that my friend Dr. Theodore Williams is now lying seriously ill at Cannes with typhoid fever contracted at Naples, and is so added to the already large list of our countrymen who have fallen victims to the terribly insanitary conditions which are so prevalent in the hotels of Southern Italy. Probably every member of the medical profession knows of one or more who have suffered in the same way. The valuable lives which have been thus sacrificed from preventable causes are already sadly numerous, and the number is yearly increased. In my judgment there is no holiday ground so interesting as Italy, none with superior natural advantages of climate, and none which should be so health-giving; and yet, as things stand, every man who goes there holds his life in his hands, and subjects himself to serious risk. It is well worth inquiring whether something cannot be done to remedy what is rapidly becoming to the travelling Englishman an evil of the gravest kind. It may be that I am a *laudator temporis acti*, but I am pretty sure that twenty or twenty-five years ago, when the number of British tourists in Italy was infinitely smaller than it is now, the cases of fever were very much less numerous in proportion; nor are they met with at the present time, to anything like the same extent, among the resident population. For this there must be some explanation, and I do not think one need go far to find it. At that time, and to a great extent in the present day, except in the hotels frequented by British tourists, the so-called "English comforts," especially that most dangerous of modern inventions the "watercloset," were little known. The result was unsavoury, but, at any rate, the foul gases were dispersed in comparative safety; they were not "cabined, cribbed, confined" in leaden tubes, and laid on for the destruction of tourists; and it was possible to get away from the unpleasantness that accompanied this state of things. Nowadays, wherever the British congregate closets have been constructed by Italian workmen absolutely ignorant of the merest elements of sanitary science, and thus the seeds of disease are brought straight into the house. Everyone who has travelled in these parts must have observed that in most cases in which the hotel is situated in some old adapted building, as a large proportion of the hotels are, the closets have been placed in any convenient room in the centre of the house, and are of the most primitive and inefficient kind. This I have observed over and over again in Naples, Rome, Venice, the Italian Lakes, and, in fact, in all the most frequented resorts. In the newly built hotels things are but little better, and the minute care in the sanitary engineering, of which we are beginning of late years to appreciate the importance in this country, is in most of the miscalled "health resorts" practically unknown.

So long as this state of things continues, so long, of necessity, must the list of casualties from these causes be yearly on the increase. It may be said that for this we have no remedy, but I hardly think this is the case. The evil is so grave that some attempt should certainly be made to cope with it, and what I venture to suggest is that some endeavour should be made to send a properly qualified sanitary commissioner to report on the condition of the chief hotels in the places most visited by our countrymen. A LANCET list of those which were found in a satisfactory state would be a public benefaction; it would surely be copied in Murray, Baedeker, and Bradshaw, and the landlords of those placed in the "index expurgatorius" would soon be compelled by self-interest to see that their sanitary arrangements were properly attended to. No great expense would be involved by some such scheme, and the result would be that the loveliest and most interesting of European countries might be visited in comfort and safety, instead of, as now, in fear and trembling.

I am, Sir, yours truly,

W. S. PLAYFAIR.

George-street, Hanover-square Feb. 3rd, 1884.

"TREATMENT OF FLAT-FOOT."

To the Editor of THE LANCET.

SIR,—May I relate two cases treated on principles not only different from, but entirely opposed to, those set forth in Prof Ogston's paper, where the permanency of the cure effected has stood the test of more than ten years of active life? Of the one I am myself the subject; the other may be identified at the Regent's-park barracks as that of a farrier in the 2nd Life Guards.

In Aug. 1867, my right foot was terribly crushed by the body of a horse falling violently against it on a street crossing; in addition to a fracture of the fibula, the scaphoid bone was dislocated inwards, the middle cuneiform upwards, and the cuboid downwards, as the tarsal bones still remain, although much less out of place now than at that time. Any remains of an arch soon disappeared on bringing the foot into use, and I found myself with not only a foot absolutely flat, but a knowledge that the ligaments supposed to support the arch must be very much damaged. With the aid of a mechanical contrivance I managed to get about pretty well, and even on occasion to walk a long distance, but any attempt to do so without such support was disastrous. At the end of six years I was little, if any, better than at the end of the second. At this time, having been stimulated to a very careful study of the anatomy of the foot and the physiology of its movement, I began to put in practice the conclusions to which I had arrived. The course adopted and the reasonings which led to it are set out in a little monograph, On the Arch of the Foot," which I had printed and sent to professional friends, in 1877. It was noticed in Mr. Holmes's "Surgery; its Principles and Practice," published soon afterwards. To put it briefly, I had satisfied myself that ligaments, even in health, could not sustain, for prolonged periods, the weight of the body, but that the flexor muscles acting (by their tendons) jointly with the tibialis posticus and peroneus longus produced the same effect on the sole as a tightened bow-string does on a bow, with this difference, the tendon of the long flexor of the great toe, which, in passing the ankle, is the lower, is crossed by that of the common flexor and drawn up by it, so that a greater hollow is formed under the line of these bow-strings and a more open arch produced. I might, perhaps, have better compared them to tie-rods holding up a roof where increased head room is given by drawing up the rod passing across horizontally by others attached to the middle of the roof. I set myself to effect this purpose by promoting the action of the muscles in every way I could. On beginning I was unable, with the affected foot, even for a moment, to stand on tiptoe, or to go upstairs without planting the foot sideways on the step. I discarded the mechanical boot at once, yet in six months I could hop over three footstools one after another, and walk upstairs in the ordinary way. From then until now the foot, always a damaged one, has never given me any serious trouble, and for long has been just as useful as the other.

Albert O——, aged sixteen, farrier's apprentice (now aged twenty-seven), was admitted to the Gloucester Infirmary under my care more than ten years ago for flat-foot. I remember his case as a bad one, and he tells me now that he could not then without his boots walk across the room, and with them it was painful to do so. He was treated by pads in the sole firmly fixed in with strong strapping; after a while he was instructed to walk on tiptoe, and, as he now tells me, to "learn to dance." This latter advice he appears to have taken very literally, for although on leaving the hospital (after six weeks' stay) he was unfit to go back to his master, he afterwards went to Manchester to work, ultimately enlisting in the 2nd Life Guards, where, in addition to the strain on his feet involved in standing while he holds up the feet of horses, he takes every opportunity of gratifying his love of dancing, of which he admits having become somewat too fond. Until a few days ago I had never seen him since he left the hospital. He attributes his recovery to the advice given him, and tells me that he is so accustomed to spring on his toes that he sometimes gets called to order for doing so on parade.

This latter circumstance accords with my own experience. I do not think that I ever stand for more than a few seconds without instinctively springing forward on the toes. The lateral deviation of the great toe is, no doubt, in some cases a secondary change in flat-foot, as Professor Ogston puts it.

I am sure, however, that it is often a primary one. The great toe is diverted from the straight line by the conventional boot towards the middle line of the foot, and can no longer be used (to quote from my paper) "as a firm fixed point or fulcrum from which the body can be propelled onwards, its strong flexor muscle being a powerful agent in doing so." The peroneus longus is no longer antagonised, and the foot is still more everted, the arch falling as the bow-string action of the long flexor fails.

I would express my entire concurrence with the view expressed in your article that Prof. Ogston's operation cannot be warranted in more than a few cases. For myself, speaking as one who has had the subject before him for many years and had considerable opportunities of judging, I cannot imagine such a case. Unless the patient be compelled to stand or walk unduly, I never advise a pad or support of any kind; my wish is to bring the muscles on which I so much rely into full use as quickly as possible. If the case be so bad that the patient cannot even stand, I advise that two pulleys be fixed in the ceiling of his room, a little distance apart, and that, by means of a handle attached to one end of a cord running over these, he should be at intervals occupied in raising a weight attached to the other. This weight helps to support the body, and the attempts to draw the handle downwards lead to the use of the flexor muscles in gripping the ground. Anything which consigns the patient to bed ought, as I think, to be avoided. I believe it to be a law that muscles developed by vigorous action tend to remain, if not tense, taut and firm when not in action. On the constant pressure thus induced I rely for the necessary change in the shape of the bones when these have been altered by deformity (unless it be excessive), a change at least as possible in the direction of curing as it is in that of causing it.

In the discussion at the Medical Society on Professor Ogston's paper, the President, Sir J. Fayrer, is reported to have spoken of flat-foot in soldiers, and to have asked what is to be done. I would say, first, let the authorities give them proper boots, not such as are now supplied; then let the conventional idea of "marching" go the way of "bumping the saddle" in the cavalry, and the men be taught to walk according to the true physiology of the feet. Of this, however, I must admit that so far as I know no full account has been written.

It may be asked, too, What is the best form of boot? A question not, I think, admitting of answer in a few words. I will, however, if permitted, send you some notes upon the subject some time before the Health Exhibition is opened, where, at my instance, some specimens of the best form I know will be shown.

I am, Sir, yours obediently,

T. S. ELLIS,
Consulting Surgeon to the Gloucester Infirmary.

Gloucester, Feb. 5th, 1884.

To the Editor of THE LANCET.

SIR,—The opinions which have been recently expressed upon the subject of the treatment of flat-foot have been so varied that a considerable amount of doubt must arise in the minds of those who have not given much attention to this subject as to which is the best plan of treatment—whether a patient should be subjected to osteotomy, to tenotomy, or to mechanical treatment alone. In the expression of those opinions I have been surprised that nothing has been said about the suitability of the various plans of treatment to the different kinds of flat-foot. Where the muscles are contracted there ought not to be any difference of opinion as to the advisability of performing tenotomy; but in the majority of cases of flat-foot there is no contraction of muscles, and therefore no need for tenotomy. It is in the latter circumstances a question whether we should treat our patients by means of mechanical supports to the arch of the foot, by exercises and other tedious measures, or attempt a cure by osteotomy. If the former method is adopted—and I think we shall find the majority of patients prefer it to the more heroic proceeding—there are two points which I have found worth attention. They are: first, that any mechanical support should be applied *quite beneath* the depressed arch, and not at the side, where the projection is most noticeable; secondly, that the action of the short muscles of the sole of the foot should be exercised and stimulated in various ways, for I have usually found these muscles weak in such cases. In the discussion which took place at the Medical Society on Jan. 14th, the President, Sir Joseph Fayrer, asked a question which no one has yet answered, although it seems to me one of the most important questions of the whole subject. He asked what could be done for flat-foot in children before structural changes have taken place. I have found that in these young patients, if the treatment is commenced early, the affection can be cured by means of mechanical support and exercises, and in exceptional cases by tenotomy. Osteotomy can never be necessary in the case of young people; it should surely be reserved for those severe cases in adults which resist all other plans of curative procedure.

I am, Sir, yours truly,

NOBLE SMITH.

Queen Anne-street, Cavendish-square, W., Feb. 1884.

To the Editor of THE LANCET.

SIR,—Referring to the correspondence which has appeared in your journal on the above subject from time to time, I have been somewhat surprised to notice that your correspondents have omitted to mention, except occasionally, and then only cursorily, the manipulation treatment. Now, as far as my own experience goes, I have invariably found it to effect cures more readily than the mechanical or instrumental treatment. Of the many methods of the various exercises resorted to the two chief are, in my opinion, resting at intervals in the "tailor" or "sartorial" position, or constantly standing or resting on the outside of the foot, so that the sole is directed inwards. With the view of illustrating my remarks I will mention two or three of the many cases which have come under my notice. A young man who had considerable flattening of the right arch was ordered by a surgeon of repute to wear an appropriate boot with a valgus pad, and an outside iron with a T-strap. After the lapse of many months, though the deformity had not increased, no improvement whatever was effected. He then consulted me, and I suggested that he should, when not walking, discontinue wearing the iron and T-strap, and should constantly circumduct the foot—i.e., should rest or throw the whole weight of the body on to its outer side. After adopting this mode of treatment for a very few weeks the deformity rapidly disappeared, and the patient was able to walk in a perfectly symmetrical and comfortable manner. Again, some time since a young lady of position, aged nineteen, consulted me with reference to the altered shape of her feet and of the pain caused thereby. She had the so-called typical flat-foot. I suggested that she should wear, instead of her fashionable shoes, appropriate boots, which were accordingly made, but on her next visit to me I found that she still wore her own style of shoe, informing me that she preferred suffering from the deformity and pain to wearing the boots. As I could not prevail upon her to wear them I advised her to rest at certain intervals in the "sartorial" position, and when standing, even in society if possible, to constantly circumduct each foot, so as to throw the whole weight of the body on to the outer side of the feet, as above mentioned. To this she readily consented; and after a few weeks' practice the result was astounding. I may mention just another instance of the success of this treatment. I was consulted with reference to a little girl who had flattening of the arch of each foot, and who, when walking, carried the fore part of the feet in an everted position, forming together an angle of not less than 120°. I suggested that she should be allowed to drive a tricycle with appropriate foot-rests. My young patient was delighted with the idea; and after a very short time the result was as satisfactory as in the last case. And I could multiply instances of similar success, but I fear I should occupy too much of your valuable space in enumerating them.

Just a word or two in conclusion. I do not wish it to be understood that I am opposed to the instrumental treatment; on the contrary, I think, in advanced cases, it is absolutely necessary; but the manipulation treatment in the earlier stages of such deformities ought in most cases to effect a comparatively speedy cure.

I am, Sir, yours obediently,

R. FITZROY BENHAM, M.R.C.S.,
Registrar, National Orthopædic Hospital.

Feb. 4th, 1884.

THE POLICY OF THE METROPOLITAN ASYLUMS BOARD.

To the Editor of THE LANCET.

SIR,—I hope you will allow me, on behalf of Eastern London, to point out in your columns that the recent policy of the Metropolitan Asylums Board is just the reverse of being "based on a desire to comply with the evident intentions of the Royal Commission on Hospitals." For months this Board has been spending thousands of pounds on elaborate plans for meeting, first, a possible invasion of London by Asiatic cholera, and, secondly, another epidemic of small-pox, which may probably be expected about ten years hence. But for the accommodation of those endemics, more especially scarlet and enteric fevers, which are ever in our midst, and which an increasing poor population with its apparently inseparable overcrowding and insanitariness must inevitably tend to multiply and spread, the Board seems determined to adopt a most mistaken and short-sighted policy. The facts are as follows. On Aug. 4th, 1883, it was resolved: "That having regard to the facts detailed in the report of the Eastern District Hospitals Committee, the managers are of opinion that the necessity of an additional fever hospital for the eastern district has been established." Thereupon it was unanimously resolved that the above resolution, and the report itself, be forwarded "for the Local Government Board's consideration; and that the Board be requested, should they also be convinced of the necessity, to authorise the managers to take the necessary action in the matter." On August 16th, 1883, the Local Government Board answered that they concurred in the said necessity. This letter was on September 1st last referred to the General Purposes Committee. Excepting an ineffectual negotiation with a public body for their building, no endeavour whatever has since then been made either to obtain a site or "to take the necessary action in the matter." The General Purposes Committee, indeed, practically ignored the "resolution" of the Board, as well as the "concurrence" therewith of the Local Government Board, on the urgent necessity of an additional fever hospital for acute cases; and, by methods which I need not particularise, obtained the reversal of the Board's vote of August 4th last, and the substitution of a scheme which provides for the erection of convalescent hospitals alone. The managers have thereby not only taken upon themselves to reverse what was practically a decision of the Local Government Board, but they are now proceeding, so far as fevers are concerned, in direct opposition to the recommendations of the Royal Commissioners on Small-pox and Fever Hospitals.

In their report (1882) the Commissioners say (p. xxxii.):—"Of the 3000 fever cases, those in the earlier stage—probably about half—should be provided in the near neighbourhood of London; the other half, the convalescents, in two or three country hospitals. ..... *And* we think it probable that with the aid of another hospital, which appears to be *almost indispensable for the east of London*, they would fully accommodate all the cases requiring London treatment." It is impossible to construe these words to mean that convalescent hospitals are to be erected as *substitutes* for an *additional* eastern hospital for acute fevers. On the contrary, the Commissioners signify plainly their views of the necessity for this latter when they say of it, and of it only, that it is "almost indispensable"; whereas they regard their other recommendations as merely "advisable."

As regards the costliness of a site for a hospital for acute fevers, it is obviously very short-sighted policy to therefore postpone the purchase for some few years more. It must come. This present urgent need will most surely and yearly increase, despite the erection of convalescent hospitals. By dropping the substance and grasping at the shadow the managers have obtained but a minimum of alleviation to the urgent need of the eastern districts.

Without troubling you with figures in detail, I vouch it can be shown that, even admitting a convalescent hospital might on a given day relieve an acute hospital of half its inmates, the relief would still be insufficient for the yearly required accommodation of eastern London.

I am, Sir, yours obediently,

ROBERT FOWLER, M.D.

Old Burlington-street, W., Jan. 25th, 1884.

WELLINGTON COLLEGE.

To the Editor of THE LANCET.

SIR,—Mr. Barford, in his last communication to you, points out that I have passed "without notice the subsoil of clay at the College, which makes it so damp, as he does the fact of the existence of at least £30,000 worth of house property on the College estate containing more than a hundred residents, for which his scheme has provided no sewerage whatever." That there is a bed of sandy clay running under the whole estate of Wellington College, and in fact under the upper Bagshot beds of Surrey, Berkshire, and Hampshire, is a point which I do not dispute; but as to whether or not these beds of clay have any influence on the health of the district is, to my mind, incontestably proved by the fact that if they did exercise any baneful effect it must have affected the "healthy school" to which Mr. Barford refers, as well as the College.

At the site of the College the bed of clay mentioned is nine feet in thickness, and is found at a depth of thirty feet below the surface, it being covered with upper Bagshot sand, but wherever this bed of clay exists it is covered by the ordinary subsoil water of the district, which furnishes the supply of water to all the superficial local wells, including that of the "healthy school." Covered as the clay bed always is with water, I cannot conceive what influence it can exercise upon the health of the district. The stratum immediately below the clay is also surcharged with water, and it would be difficult to find any place, except upon a retentive soil, in which a similar condition of subsoil water does not exist. Such clay subsoil and sand are pretty common to all geological formations, yet it has never been shown that these conditions exercise, in their respective localities, any malarious influence. All the authorities on malaria with which I am acquainted clearly show that it is never extricated from a water surface, and as the conditions are identical under the healthy school with those under the College, I cannot believe that they can be proved to have any influence in producing malaria.

With regard to the houses, which Mr. Barford states no provision has been made for in the scheme of sewerage, I may distinctly state that there is not a single master's house on the College estate in which boys are received that has not been thoroughly drained and connected with the system of sewerage. I am aware that there are other houses, the property of private owners who have taken the land on a long lease from the College authorities; but it is no part of the duty of the governors to provide the means of sewerage for them; besides, all these houses stand to the north of the deep valley, which entirely severs them from all connexion with the College. I am quite prepared to admit that it is very desirable for the houses in question to be properly drained, one of these houses being occupied by Mr. Barford; and if he would exercise his influence with the local sanitary authority, probably this desirable object might be brought about. That the district is not particularly malarious is tolerably clear from the fact of Mr. Barford having planted himself in a house within fifty-five yards to the north of the centre of the valley which is supposed to be so malarious; and with regard to the influence of what is termed "septic poison," it is well known in the district that only so recently as November last one of Mr. Barford's sons met with a serious accident at Cambridge which necessitated surgical treatment—therefore a case which, I am informed, was very likely to be influenced by "septic poison"—yet the boy was brought home, and under the skilful treatment of his father, notwithstanding the malarious nature of the district, speedily recovered.

I am told by Mr. Barford that the trees clearly indicate the direction of the prevailing winds at Wellington College. It is extremely difficult in such a case to judge by trees alone what is the influence of the prevailing wind, and what is the influence of the sun; and it is only in very exposed situations in such a neighbourhood that trees do indicate the direction of the prevailing winds. But if Mr. Barford had gone on to the plateau of the cricket-ground belonging to the College he would have seen that the trees there do clearly indicate the direction of the wind—viz., from the south-west. Upon this question, however, as there is a meteorological register kept at the College, which, when I wished to consult it a few days ago, I was informed was in Mr. Barford's possession, and had been for some weeks

past, it is clear that he had the means of satisfying himself as to the number of days on which the wind was blowing in a particular quarter. It should be observed that in the lower part of the College grounds the valley turns to the north-west; and such is the position of the healthy school that from all points of the compass from west, through south to south-east, the wind would blow across the "malarious" valley towards the healthy school, while the wind from north-west, through north to north-east, would only blow in the direction of the College. In the year 1883 the register shows that the wind was observed on 347 days. Of these, 62 were from the south, 26 from the west, 89 from the south-west, and 24 from the south-east — total 201; or 58 per cent. of the total number blew in the direction of the healthy school; while in the same period the record shows that 50 were from the north, 55 from the north-west, and 34 from the north-east—total 139; or 40 per cent., which would affect the College, the balance being made up of seven days when the wind was from the east. It is quite evident, therefore, that in the year to which Mr. Barford has drawn special attention in his letter the prevailing winds were very much more likely to affect the building which escaped, if any malarious influence arose from this valley, than the College, which is alleged to have suffered from such malaria.

With reference to the meaning of the word "murk," from the passage from Milton quoted by Mr. Barford, there does not appear anything to indicate either that the air was damp or misty; but as reference is made to Shakespeare, without, however, giving a quotation, I may be allowed to give one.

"Ere twice in *murk*, and occidental damp,
Moist Hesperus hath quenched his sleeping lamp."

Clearing indicating that murk was something different from damp. On consulting a good Encyclopædia the derivation of the word will be found to be from the Danish "morck," signifying dark. I have never heard the word "murky" used by any local person in the sense Mr. Barford uses it. Probably he is confounding it with "muggy," which only represents the conditions he describes, and is a common expression.

Referring to that part of Mr. Barford's letter respecting the diminished birth-rate producing a high death-rate, I am quite aware of this, and it was on that account I gave the proportionate number of births to deaths in all the districts. For Sandhurst district the proportion of births to deaths is much higher than in other districts, which at once shows the healthiness of the locality and supplies a correction for any deficient number of births in the district; so that by the increased number of births over deaths, as well as in the low death-rate, and more especially in the remarkably low zymotic death-rate of the district, we have evidence that no malarious influence is at work. Although it may be true that in this special district there are conditions of health which do not exist in some other districts, yet these conditions would not apply to zymotic diseases, and especially they would not apply to the healthy school referred to, where boys of a much younger age are received than at the College. The very fact that Wellington College has been in existence for twenty-five years, and that it is only during the past two years that these throat ailments have occurred, goes far to show that the locality is extremely healthy.

Upon inquiry at the College at the commencement of the week, I am glad to be able to state that there has not been a single case of sore-throat during the present term, and I trust that the efficient sanitary measures which have been adopted will be the means of maintaining the College in as healthy a state in the future as it has been in the past.

I am, Sir, yours faithfully,
BALDWIN LATHAM,
M. Inst. C.E., F.G.S., F.R. Met. Soc.

Westminster, S.W., Feb. 6th, 1884.

INTRA-PERITONEAL INJECTIONS IN CHOLERA.

To the Editor of THE LANCET.

SIR,—I crave a small space in your next issue, and with your kind indulgence hope to show Dr. Macdowall that my idea of injecting fluids into the peritoneal cavity was not taken from his communication published in THE LANCET of Oct. 13th, as he implies in his letter published in your issue of to-day, my letter having been sent in for publication on Oct. 9th—i.e., a few days before his letter appeared in print. I was entirely ignorant of the employment of intra-peritoneal injections in any disease whatever at the time; and Dr. Macdowall's communication was the first I saw bearing on the subject, and it was with very great pleasure that I read his able advocacy of the above-mentioned method of treatment in Asiatic cholera.

My motive for suggesting such a plan of treatment was founded on the physiological fact that in the peritoneal cavity we have a ready means of communication with the great intra-abdominal lymphatics, and through the latter with the general circulation—a fact of no small importance in the collapse stage of cholera, when we desire to influence the circulation speedily, and act perhaps more directly on the intestinal canal than we can do by the mouth or by intravenous and hypodermic injections.

One other point, which I must notice as briefly as possible. Dr. Macdowall thinks that I had some hesitation about the safety of this method of treatment. I may say I had no doubt as to its safety; or, more correctly, I considered it as safe an operation as any could be where the peritoneum was involved, provided always that we use non-irritant injections—e.g., pure ascitic fluid, blood serum, or pure water at a suitable temperature. It was with reference to the exhibition of the remedies (in solution) by way of the peritoneal cavity that I suggested experiments on the lower mammalia, in order to test their safety in such a mode of administration; for it is only by such experiments that we can learn the tolerance by the peritoneum of remedies injected into its cavity—a subject which, as far as I am aware, has not been investigated as yet, and which I hope to work at the first opportunity I have.

I am, Sir, your obedient servant,
GEO. CARRINGTON PURVIS, M.B.Edin.

London, Feb. 2nd, 1884.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

To the Editor of THE LANCET.

SIR,—A proposal having been publicly made that wards or beds should be set apart in this hospital for a particular class of patients, I beg permission to state that the Medical Committee has passed the following resolution respecting it:—

"Resolved: (1) As this hospital already undertakes the treatment of all such varieties of diseases of the nervous system as are capable of being treated in a hospital as distinguished from an asylum, (2) as cases of insanity are not legally admissible, and (3) as it would be detrimental to the interests of the other patients to admit insane persons if the legal difficulty were met, we advise the Board of Management not to accept the proposal made to them."

I am, Sir, your faithful servant,
B. BURFORD RAWLINGS, Secretary.

Queen-square, Bloomsbury, Feb. 7th, 1884.

SCOTTISH NOTES.

(From our own Correspondent.)

THE ST. JOHN AMBULANCE ASSOCIATION IN DUNDEE.

REFERENCE has formerly been made in this column to the efficiency of the medical and charitable institutions in Dundee, and to the generosity of the citizens in providing the supplies; it seems now that the town will soon have in working order all the minor organisations aiming at the improvement of the public health and the relief of the sick and injured. Following close upon the opening of children's wards at the infirmary and the establishment of a Sanitary Protective Association, we have this week to notice the successful inauguration of a centre of the St. John Ambulance Association, and the opening of a sanitary exhibition. This last is only a small collection, but it contains most of the best and the newest inventions, and gives an opportunity to the citizens of becoming acquainted with articles about which they have read much of late and of putting in practice principles enforced on their notice by sanitarians. The medical profession seems prepared to give every assistance to the St. John's Association; many of its members were

present at the meeting, and a large number are on the influential committee proposed by Dr. Sinclair. In his speech Dr. Sinclair showed that much suffering and serious injury resulted from the present means of conveyance to hospital, and urged that every mill, factory, &c., should have a wheeled litter, while a horse ambulance should be kept in a central station. With its many industries, Dundee is peculiarly in need of ambulance teaching, and judging from the names of those chiefly interesting themselves in the subject and the comprehensive scheme they have in view, it may be expected that good work will be immediately commenced. There is, at least, an excellent choice of lecturers.

PERTH INCURABLE HOSPITAL.

From the annual report of this charity recently made public it appears that the new house at Hillside has been largely taken advantage of, and at present the number of patients (thirty) is about equal to the average inmates of the county hospital, from which many of the cases are transferred. The house has been suitably furnished by willing hands, and the directors state that the improved hygienic conditions have told most favourably on the health of the inmates. Convalescents are now received in limited numbers, and, as might have been anticipated, the arrangement works well. By this means the inevitable dulness of despair, inseparable from an assembly of incurable cases, must be relieved, and the atmosphere of the place is given something of hope. Of forty-eight cases treated last year, thirty remain, ten have died, and eight have been discharged. The medical officers were thanked, and Mr. Parker, M.P., urged that further provision should be made for hopeless sufferers, whom he had seen shut out from all that was conducive to health or comfort. Further support to this charity is to be preferred to a hasty suggestion for more expenditure in stores and linen, and the provision of a new charity in the shape of a consumption hospital; but it would be even a greater good to secure cases of incipient phthisis and to place them under the hygienic conditions so conducive to cure. In such a house as this at Hillside a few weeks of residence might suffice to clear up a consolidated apex and to indefinitely postpone a threatened attack. The admission of cases other than those which are hopeless is a happy change which might be copied by the various hospitals for incurables throughout Scotland. Let Aberdeen take note!

THE SANITARY SUPERVISION OF BAKEHOUSES.

The Factory and Workshops Act, 1883, having come into force, the Board of Supervision has issued a circular drawing the attention of local authorities to its health clauses as relating to bakehouses. The more important clauses (15 and 17) are quoted, and it is advised that the medical officer or an authorised assistant should visit and report upon the various bakehouses, so that the local authority may take the necessary steps for a due enforcement of the law. From what appears in this circular it may be inferred that the public will receive no protection from such disgust as was felt by a late distinguished Scotch professor when the weeping or encrusted hands of an operative were placed before him as a dermatologist. On knowing the particulars the surgeon exclaimed, "My own baker! my own baker!" Medical officers might take a hint from the episode.

A COMFORTABLE EMBARRASSMENT.

The Fife and Kinross Lunacy Board are at present in perplexity as to what should be done with a sum amounting to nearly £6000 which has gradually accrued from yearly surpluses. It seems more strange that this comfortable condition of things has been brought about without any sacrifice of the patients' interests, and in presence of the fact that already the charge is but £21 per patient, lower than in any asylum with which I am acquainted. The surplus has been accumulating since 1871, and cannot legally be employed in reducing the debt on the buildings, so that it is now proposed that the rate of board shall be yet further reduced, and a committee has been chosen to consider the matter. This condition of things is evidently largely due to the management of Dr. Turnbull and his predecessor, Dr. Fraser.

ABERDEEN AND ITS MEDICAL OFFICER.

It is very satisfactory to note the manner in which the Aberdeen authorities have met the request of their excellent medical officer, Dr. Simpson, for an increase of salary. They have agreed that a rise of £50 this year will be supplemented by a similar increase in 1885, making a total of £430; but it is not supposed that this last sum is the full estimated value of Dr. Simpson's services. In this matter of justice to medical officers we may be said to have in Scotland three portions of leaven—at Edinburgh, Glasgow, and now at Aberdeen; but judging from past progress it will be long before the whole lump is leavened. As a country we have no proper sanitary service.

IRELAND.

(From our own Correspondent.)

THE 11th inst. will be the anniversary of the hundredth year of existence of the Royal College of Surgeons.

ROYAL UNIVERSITY OF IRELAND.

Attention has recently been drawn to a regulation which exists in this University, and which appears to require an alteration. According to the present rules the examination fees of unsuccessful candidates are not alone retained by the authorities of the University, but on every occasion these candidates must pay the same fees in full before undergoing a fresh examination. It has also been pointed out that in the late Queen's University no fee was required for the junior examinations, and an unsuccessful candidate at a final examination could present himself for re-examination as often as necessary without an additional fee. These facts have attracted the attention of the Senate, and at a recent meeting they resolved to apply for a supplementary statute enabling them to admit, in certain cases, rejected candidates for re-examination without renewed payment of fees. At the same meeting committees were appointed to co-operate with the University of Dublin in taking such steps as may be found necessary concerning the Medical Acts Amendment Bill, and to secure for the University in any future legislation representation in Parliament.

PRESENTATION TO PROF. MACALISTER, M.D.

A meeting of graduates and students of Trinity College who had been pupils of Prof. Macalister was held last week in order to present him with a testimonial on the occasion of his leaving Dublin to fill the Chair of Anatomy in the University of Cambridge. The testimonial consisted of a silver dessert service, and the recipient, having returned thanks, said he was happy to hear that there was a probability of new and more commodious buildings for biological teaching in the University being shortly erected, and that thus his departure would prove to have been an unmixed advantage to Dublin.

EXCISION OF THE TONGUE.

On the 8th inst., Mr. Kendal Franks, at the Adelaide Hospital, Dublin, successfully excised the entire tongue in a man aged forty-five, for carcinoma. Room was obtained by division of the cheek from the angle of the mouth to the anterior border of the masseter; and the attachments of the tongue to the lower jaw and to the floor of the mouth were then divided by means of the electro-cautery, the wire having previously been passed through the base of the tongue. A puncture was then made in the middle line immediately above the hyoid bone, and the loop of wire brought through this was made to encircle the root of the tongue, which was then divided. The separation of the organ was effected without a drop of blood being lost. As part of the side of the palate, the anterior pillars of the fauces, and the tonsil on the same side were involved, these were removed with the thermo-cautery. Some brisk bleeding occurred from the palate wound, but was readily checked by a plug of lint soaked in perchloride of iron. The patient has since progressed well, and, except for a slight hæmorrhage from the same spot in the palate on the eighth day, has had no bad symptom. Up to the twelfth day he was fed by enemata, but then a catheter was passed into the stomach and food thus administered. He was allowed to get up on the tenth day after the operation.

BELFAST ROYAL HOSPITAL.

At the monthly meeting of the Belfast Town Council the report of the Law Committee recommending the Council to alter the limit of subscriptions to the Belfast Royal Hospital from £100 to £500 a year was under consideration. Various objections were made to the increased grant, among others that if the Council commenced to levy a rate in favour of

one hospital in the town, every other hospital would have its claims placed before them for equal treatment. An amendment, referring the matter back to the Council in committee, was ultimately adopted.

THE NATIONAL ORTHOPÆDIC CHILDREN'S HOSPITAL, DUBLIN.

It is satisfactory to learn that this valuable institution is now out of debt, a circumstance which is largely due to the receipts of the bazaar held in November last having amounted to the sum of £170. Last year the number of extern patients was 1513, and of intern 44; and the committee in their annual report refer to the great improvement in the working of the hospital, in the nursing, and in the result of the surgical operations.

"THOUGHTS ON EDUCATION."

The above was the title of the inaugural address given by Mr. Edward Hamilton, President of the Dublin Branch of the British Medical Association, at its annual meeting on the 31st ult. He said that memory, the mere faculty of retaining communicated knowledge, was the rope of sand on which modern education hung; it was the fetish which their teachers worshipped; the philosopher's stone which could turn everything to gold. Education comprised two essential elements, teaching and training. Deficiency in either of these would render it weak, illusory, and valueless. The vital error of the existing system was the desire to cram the head with detached fragments of learning, without the least effort to train the intellect. He thought that the entire system of lectures demanded sweeping and thorough reform. It was simply impossible that students could derive benefit from the enormous amount of attendance on lectures exacted from them, to the exclusion of practical work.

THE HIND FUND.

WE are requested to state that this fund will be closed on Thursday, March 6th next, until which date subscriptions will be thankfully received by Dr. Richardson, F.R.S., (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, Hon. Treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street; and Thomas Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, Hon. Secretaries; or by Messrs. Coutts and Co., Strand. The following additional contributions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—

Hutchinson, Jonathan, Esq. (additional donation)	£5	5	0
Muscroft, H., Esq.	0	10	0
Rogers, T., Esq.	1	0	0
Somer, James, Esq.	1	1	0
Sylvester, Dr. C. J.	2	2	0
Thomas, Dr. Danford	1	1	0
Woakes, Dr.	1	0	0

MEDICAL NOTES IN PARLIAMENT.

Dwellings of the Poor.

IN the House of Commons, on Tuesday, the opening day of the session, Mr. Arthur Balfour gave notice that on March 4th he will call attention to the condition of inhabited dwellings in crowded districts of large towns, and will move a resolution. Mr. Cohen gave notice that he will bring in a Bill to secure compensation in certain cases to the occupiers of tenements which are taken or demolished under statutory powers. Sir James Lawrence will call attention to the necessity of extending the provisions of the Common Lodging-houses Acts to houses occupied by several families of the labouring classes.

Sir Joseph Pease renewed his usual notice of a resolution against cumulative penalties for non-vaccination.

On Wednesday, a London petition was presented for alteration of the Lunacy Laws.

Educational Pressure.

Mr. Stanley Leighton gave notice that on Monday he will ask the Vice-President of the Council whether, after a consideration of the facts disclosed in the evidence at a coroner's inquest at West Bromwich in the case of the suicide of a schoolboy, consequent on the pressure to which he was subjected in order to force him through the examinations of the code, he is still of opinion that the code requires no amendment.

A Novel Punishment.

Dr. Cameron gave notice that on Tuesday he will put a question to the Vice-President of the Council as to the alleged practice at Lochgoilhead Public School of administering castor oil to children as a punishment.

New Bills.

The following were amongst the new Bills brought in and read a first time:—Bill to restrict the Sale of Patent Medicines (Mr. Warton and Dr. Farquharson); Bill to provide for the Regulation of Cremation and other Modes of Disposal of the Dead (Dr. Cameron, Sir Lyon Playfair, and Dr. Farquharson); Bill to repeal the Compulsory Clauses of the Vaccination Acts (Mr. P. A. Taylor, Mr. Blennerhassett, Mr. Burt, Mr. Hopwood, and Sir Wilfrid Lawson); Bill to amend the Law relating to the Care of Lunatics in Ireland (Sir Thomas M'Clure, Lord Arthur Hill, Mr. Thomas Lea, Mr. Greer, Mr. Findlater, and Dr. Lyons); Bill for the Sanitary Inspection of Dwelling-houses (Mr. Monckton, Marquis of Stafford, Mr. H. T. Davenport, and Mr. Henry H. Fowler); Bill for Preventing the Erection of Buildings on Disused Burial Grounds (Mr. Hollond, Mr. Bryce, and Mr. Pell); Bill to alter and amend the Law relating to Private Lunatic Asylums in Ireland, and to make other and more suitable provision for Paying Patients (Mr. William Corbet, Mr. Blake, Mr. Dillwyn, Mr. Dawson, and Mr. Richard Power).

Contagious Diseases.

On Thursday, Captain Price asked the Secretary of State for War if he would lay upon the table of the House the last annual report of the visiting surgeon for Plymouth and Devonport.—Mr. Campbell Bannerman: The only report received is that of the visiting surgeon, which is entirely confidential, and not such a document as can be published.—Sir H. Wolff asked the Secretary of State for War if he could state whether any, and if so what, increase had taken place in the percentage of contagious diseases in the army and navy since the suspension of the operation of the Contagious Diseases Act, and whether he would lay upon the table returns on the subject.—Lord Hartington replied that he had already had full returns on the subject prepared, and they would be presented to the House immediately.—Sir Henry Wolff asked the Under Secretary for the Admiralty whether there was any truth in the statement that, in the case of a large number of seamen suffering from those disorders, orders had been issued by the Admiralty that sailors not yet cured should be sent from the hospital on board seagoing ships.—Mr. Campbell Bannerman asked for notice of the question.

Death from using Patent Medicine.

Mr. Warton asked the Secretary of State for the Home Department whether his attention had been called to the case of William Henry John Heath Sheahan, aged seven months, on whose body an inquest was held on Dec. 31st, 1883, by Dr. Danford Thomas, and whose death the jury found was caused by the antimony contained in a patent medicine called "Holt's Specific for Whooping-cough."—Mr. Mundella replied that the attention of the Privy Council had been drawn to the matter, and a Bill was now under consideration which would be introduced very shortly in the House of Lords.

THE LONDON HOSPITAL.—A suggestion made some time ago by the medical council of this hospital, to the effect that it was desirable that greater facilities than had hitherto existed in the institution should be afforded, in order to enable the staff more effectually to deal with cases of poisoning brought there, having met with the approval of the house committee, a case designed and manufactured by Messrs. Richardson and Co. of Leicester, containing antidotes and appliances useful in cases of poisoning, has been placed in the waiting-room of the hospital. By this means cases of poisoning may be treated without delay—a desirable thing in these days of free trade in soothing syrups, vermin killers, &c.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — The following gentlemen were admitted Members of the College on the 31st ult.:—

Acland, Theodore Dyke, M.D. Oxon., Lambeth-palace-road.
Barrs, Alfred George, M.D. Edin., Leeds.
Beatson, William Burns, M.D. St. And., Bath.
Branfoot, Henry Seymour, M.B. Lond., Brighton.
Buxton, Dudley Wilmot, M.D. Lond., Gower-street.
Campbell, Harry, M.B. Lond., Keppel-street.
Hebbert, Chas. Alfred, L.R.C.P., Westminster Hospital.
Smith, Robt. Percy, M.D. Lond., St. Thomas's Hospital.

On the same day the following gentlemen were admitted Licentiates of the College:—

Appleford, Stephen Herbert, Finsbury-circus.
Armitage, Edward Harris, Brook-street.
Beebe, Charles Edward, Cambridge-street.
Blaxland, Walter, Victoria-park-road.
Blower, Bernard, Shaw-street, Liverpool.
Branthwaite, Robert Welsh, Infirmary, Macclesfield.
Brown, Edwin Harold, Northampton.
Burroughs, Leopold, Manor Villa, Lee.
Chadwick, James Morley, Heywood, Manchester.
Croft, Edward Octavius, Mornington-road.
Cummings, Harold Lytton, Dulwich.
Dowsing, Herbert Leopold, Hull.
Dyer, Sidney Reginald, County Hospital, Huntingdon.
Edwards, William Lloyd, Spurstowe-road.
Gooding, Matthew Richard, Oakely-square.
Graham, George Herbert, Thicket-road.
Graham, William, M.B. Toronto, Fleet-street.
Green, Edwin Collier, Telfourd-avenue.
Harris, John William, St. Thomas's-terrace.
Hart, Arthur Herbert, Edgbaston, Birmingham.
Hingston, Richard, Liskeard, Cornwall.
Hubbard, Frederick Edmund, Kent Hospital, Canterbury.
Hudson, Charles Leopold, Middlesex Hospital.
Julyan, Francis Hervey, All Saints-road.
Knowles, Henry, Chapel Allerton, Leeds.
Littlewood, Harry, Rutland-street.
Loring, Jonathan Brown, M.D. Montreal, Doughty-street.
McConochie, S. Watson, M.B. Toronto, Bancroft-road.
McDonnell, W. Campbell, Park House, Stoke Newington.
Maitland, Alfred Derwent, Chester-place.
Manders, Neville, Marlborough.
Maurice, William James, Ipswich.
Mills, Robert, Middlesex Hospital.
Minns, Allan Glaisyer, Thetford.
Muirhead, Michael Alexander, Trinity-square.
Neale, John Headley, Highfields, Leicester.
Nuttall, Charles Dalley, Bernard-street.
Orchard, Alfred, Ashby-de-la-Zouch.
Parry, Herbert Lloyd, Canonbury-park North.
Reid, George More, Sydney, New South Wales.
Ross, Elsey Fairfax, Duke-street, Portland-place.
Rowland, John Jones, Aberystwith.
Scutt, Tom, Bere Regis.
Sharples, William Henry, Castleton, Manchester.
Sharpley, Edward, Louth.
Sheldrake, Edwin Nodin, Albion-street.
Simoens, Joseph Auspicio, Woburn-place.
Spong, William, Chelsham-road.
Starr, William Henderson, Roseford-terrace.
Sutton, Henry Martyn, Lambeth-palace-road.
Thompson, Charles Herbert, Lambeth-palace-road.
Tilley, William James, Shepherd's-bush Green.
Tomson, Walter Bolton, St. Thomas's Hospital.
Trevor, Edward Tull, Queen's-gardens.
Trott, Dudley Cox, Caius College, Cambridge.
Udale, Joseph James, Uxbridge-road.
Walton, Francis Fielder, Hull.
Weller, Charles Joseph, Coleshill-street.
White, Ernest Alfred, Blenheim-terrace, Leeds.
Williams, Montagu W., North-Eastern Hospital, Hackney-road.
Withers, John Sheldon, St. Mary's Hospital, Manchester.
Woods, Edw. Robinson, M.B. Toronto, Bancroft-road.

The following gentlemen passed the Primary Examination for the Licence on Feb. 4th:—

William Charles Anstie, East Apthorp, Walter Robert Baker, William Henry Baker, Harry Rumboid Beckett, James Robert Abrahall Bennett, James Alderson Benson, Matthew Benson, Charles Walter Biden, Charles Ormond Birch, Matthew Richard Bird, Harvey Kinnersley Bradbury, Harold Elliott Browne, Charles Basham D'Eyncourt Chamberlain, Louis Bennett Claremont, Thomas Harry Frederick Clarkson, George Fletcher Collins, Joseph H. Collymore, Guy Chamberlyn Cory, Alfred Harold Lissant Cox, Wm. Shrubsole Cunliffe, John Sadler Curgenven, George William Davis, William Davis, Ernest Dawson George Edward Alfred Evans, Otto Fraser Frohwein, Ernest Frederick Gardner, Sydney Dalton Graham, Edward Campbell Greene, Gilbert Capel Hall, William Hamilton Hall, Harold Cecil Halsted, John Edwin Hancock, Edward Moresby Hassard, James Hayes, Robert William Hazell, Charles Joseph Heath, John Joseph Hemming, James Theraplend Henderson, Alfred William Hill, James Preston Hocken, Sydney Rupert Hodge, Frank Hues, Charles Copley Hulton, Ernest Humphry, Spencer Huributt, Harold Wessen Husbands, Frederick John Jaynes, Oswald Meredith Jones, Thomas Slater Jones, John Rushworth Keele, Charles James Seddon Kelsall, George D'Alton Nugent Leake, Charles Arthur Lucas, George McShane, Charles Patrick Maguire, John Albert Manton, Edward Henry Meaden, Charles Henry Miles, Robert Devereux Mothersole, Alfred Moxon, Robert William Murray, Charles Nash, Frederick Norman, Charles Edward Oldacres, Arnold Ebenezer Olding, John Oliver, Allan Thomas Peachey, George Frederick Pollard, George Richard McIntosh Pollard, James Rae, St. John Outlaw Randa, Osborne Henry Reddall, Henry Albert Reed, Wilfred James Richardson, Vincent John Rigg, Julius Schade, Francis Marmaduke Sealy, John Bellet Shattock, Richard Greenhill Silverlock, Frederick Sloman, William Pechey Smart, Edward Arnold Cloete Smith, Francis Gerald Southern, Thomas Hindle Sykes, John Francis Taylor, Frederick Thomas, William Grant Thorold, Arthur Lumley Tireman, Albert Stephen Trediniek, William Francis Tronson, Frederick Senior Turner, Hugh Vallance, Charles Edward Valpy, Harry Victor Walker, Thomas Greaves Walker, James Walls, Albert William Webb, Percy Samuel Webster, Alexander Hastings Whicher, Alfred Frank Whitwell, Edward Lloyd Williams, Alfred Harvey Willoughby, Edward Wilson, Frank Woods, George Wordsworth.

UNIVERSITY OF OXFORD. — At a congregation held on the 31st ult. the degree of M.B. was conferred on—

Sanderson, Robert, Worcester.

BRITISH MEDICAL SERVICE.—The following is a list of Surgeons on probation in the Medical Department of the British Army who were successful at the recent London and Netley Examinations. The marks shown are those which were gained at the London examination; the order of position of these gentlemen is not affected by the marks gained at the Netley examination:—

	Marks.		Marks.
*O. G. Bradshaw ..	2410	F. S. Heuston	2109
M. Kelly ..	2375	R. J. A. Durant ..	2055
†H. R. Pinching ..	2355	G. F. Gubbin	2030
R. J. Geddes	2350	J. P. Myles	1980
W. Kelly	2185	R. Lealy	1975
D. V. O'Connell ..	2170	H. P. Birch	1975
A. Dodd	2140	M. O'D. Braddell ..	1880
‡G. Wilson	2121	J. J. C. Donnet ..	1870
J. M. Reid	2105	H. M. Sloggett ..	1845
T. B. Winter	2105	C. S. Robinson ..	1755

*Gained the Martin Memorial Gold Medal.
†Gained the Parkes Memorial Bronze Medal.
‡Gained the Montefiore Second Prize.

INDIAN MEDICAL SERVICE. — The following is a list of Surgeons on probation in Her Majesty's Indian Medical Service who were successful at the recent London and Netley Examinations. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown:—

	Marks.		Marks
*J. J. Pratt	5284	C. J. Sarkies	4096
R. Shore	4870	H. Thomson	4450
W. B. Bannerman	4705		

*Gained the Herbert Prize of £30, with the Montefiore Medal and Prize of twenty guineas.

ROYAL COLLEGE OF SURGEONS IN IRELAND. — At a meeting of the Court of Examiners held last week the undermentioned was admitted as a Fellow of the College:—

John S. McArdle.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 31st:—

Barton, Henry Thos., Bonner-road, Victoria-park.
Carr, Thomas, Melbourne-square, Brixton.
Druitt, Arthur Barthold, Lambeth-road.
Freeland, Ernest Harding, Middlesex Hospital.
Gimblett, Wm. Henry, Devonport-road, Shepherd's-bush.
Hamilton, Henry Thos., Chilham, Kent.
Low, Chas. Wm., Great Plumstead.
Roberts, G. Augustus Edw., Twyford, near Winchester.
Simmons, Harold, Tiverton.
Tatham, Chas. J. Willmer, Dollington, Sussex.
Wilkinson, Clement J., Gladstone-street, Southwark.
Willan, Leonard J., Benthal-road, Stoke Newington.

[In the list published on January 26th of gentlemen who passed the examination for the Membership of the Royal College of Surgeons on the 23rd, Mr. Sheldrake should have been described as L.R.C.P. Lond., not L.R.C.P. Edin.]

HOSPITAL SUNDAY in Sheffield this year has realised about £2000, or £200 less than last year. The deficiency is attributed to the inclement state of the weather on the day the collection was made.

METROPOLITAN ASYLUMS BOARD.—At a meeting of this Board, on the 2nd inst., a letter was read from the Local Government Board stating that the central authority had assented to the purchase of the Chaseville-park property at Winchmore-hill, at a cost of £13,870, as a site for a convalescent fever asylum, and had given authority for the purchase money to be borrowed, and the repayment to extend over a course of years, so that the prime cost should fall as lightly as possible upon the ratepayers.

HYDROPHOBIA among dogs is said to be unknown in Australia, a circumstance which explains the action of the Governments of New South Wales and other colonies in prohibiting the importation of dogs from Europe and America.

THE condition of the dwellings of the poor in Hull is awakening the solicitude of the residents of the town. At a meeting recently held, presided over by the Mayor, an active enforcement of the Artisans' Dwellings Act was urged.

THE Brighton Intercepting and Outfall Sewers Board has resolved to contribute towards groyning works for the protection of the road between Brighton and Rottingdean, the cliffs upon which it is made having recently been so damaged by the sea as to endanger the safety of the large sewer running from Brighton to Portobello, where it discharges into the Channel. The sewer was constructed only about fifteen years since, at a cost of £100,000.—*Standard.*

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, held on the 4th inst., Earl Percy, M.P., Lord Sudeley, the Rev. Edward Samuel Dewick, M.A., F.G.S., Mrs. Charles Hawksley, Sidney George Holland, Esq., LL.B., William S. Playfair, M.D., F.R.C.P., Augustine Robinson, Esq., James Thorne, Esq., and Robert Younger, Esq., B.A., were elected members. Sir Joseph Hooker, K.C.S.I., C.B., F.R.S., &c., was elected a manager in the room of the late Sir William Siemens, F.R.S.

INTERNATIONAL HEALTH EXHIBITION.—A memorandum prepared by the Subcommittee on the Construction and Fittings of the Dwelling-house has been issued. With regard to all the classes in which are to be shown buildings, furniture, fittings, &c., only such exhibits as have a distinct bearing upon health will be admitted. One of the classes includes all appliances for personal cleanliness, public and private baths, &c. The Executive Council have had under consideration the question of fitting up baths for actual use in the Exhibition, as was done in the Berlin Exhibition; but it has been decided that it would be sufficient to show baths completely fitted, without putting them into action.

THE DWELLINGS OF THE POOR.—Two committees have been formed from the Mansion House Council on the Dwellings of the Poor: the first, the General Purposes Committee, to deal with rehousing or rebuilding schemes, and also to watch legislative action and promote amendments where required; the second, the Central Sanitary Aid Committee, to promote the formation and affiliation of local committees in several districts of the metropolis. To ensure uniformity of action and avoid unnecessary clashing, each committee is limited to the working of its own clearly defined area, and rules for the guidance of the members have been prepared.

CHILDREN'S HOSPITAL, BIRMINGHAM.—The annual meeting of this institution was held on the 28th ult. The medical report showed that the average detention of each in-patient was 33·9 days; 124 cases of scarlet fever and 25 cases of enteric fever were treated in the medical wards and 114 cases of diseases of joints and bones in the surgical. The mortality had been at the rate of 7·47 per cent., against 10·05 in 1882. The beds in the general wards have constantly been fully occupied, and for want of more room many acute and urgent cases have been sent away, and many surgical operations postponed. During a time of temporary pressure on the resources of the borough authorities a second ward for scarlet fever was placed at the disposal of the corporation.

VENTNOR CONSUMPTION HOSPITAL.—The annual meeting of the governors of this hospital was held on Wednesday, Lord Lamington in the chair. The report of the board of management for the past year stated that the ordinary receipts had amounted to £9238 and the expenditure to £9246. The number of in-patients treated had been 613, but the applicants for admission had far exceeded the present accommodation, there having been as many as 91 waiting to enter at the end of the year, showing the necessity for an enlargement of the hospital. This extension had been commenced by building one block of three houses, to contain twenty bedrooms and also sitting and other rooms. The cost of building and furnishing one of these houses is estimated at £2000, and the board now appeal for funds to enable them to complete the remainder of the extension. At the termination of the ordinary business a special meeting was held, when the drafts of a petition to Her Majesty and of a Royal Charter of Incorporation were submitted and approved.

THE ROYAL MATERNITY CHARITY.—The report which was read at the recent annual general court of the governors of this institution stated that during the past year some 2700 women received the benefits of the charity through its female officers, who in cases of emergency have the aid of medical men. The balance sheet showed the receipts from all sources to have been £1859 and the expenditure £1940, leaving a balance of £81 due to the treasurer.

BATH ROYAL UNITED HOSPITAL.—The annual meeting of the subscribers to this institution was held on the 28th ult. The report showed that during the past year 1053 patients were admitted into the hospital, showing a decrease of 160 as compared with the previous year. The daily average number of in-patients was 85·64, as compared with 93·50 in 1882. The number of out-patients who received treatment was 8914, or 1465 less than last year, of whom 492 were visited at their own homes. The receipts of the past year, including legacies, amounted to £4185 2*s.* 3*d.*, being an increase of £1049 2*s.* 6*d.*, as compared with those of 1882.

MANCHESTER GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN.—The annual meeting of the subscribers and friends of this institution was held on the 29th ult., when the fifty-fifth report of the Board of Governors was read. It appears from it that the number of patients admitted to the dispensary during the past year was 7602, as against 6916 in 1882. Of these, 1050 were received into the hospital, being 170 more than in 1882; and 804 were made home patients, being 195 less than in 1882. Having expressed the deep sorrow of the Board at the death of Dr. Borchardt, who had rendered unbroken service to the institution for a period of thirty years, the report stated that the income for the year had been £7554, or £384 more than in 1882; while, with a considerably increased number of patients, the expenditure had been £7224, or £178 less than that of the preceding year. At the commencement of the year the total balance against the institution amounted to £3077, but during the year that amount had been reduced to £1247 by the application of a small portion of the legacies received and by general economy.

ST. JOHN AMBULANCE ASSOCIATION.—At a meeting of the Central Executive Committee held on the 31st ult., at St. John's Gate, the Bishop of Rangoon, M.D., and Dr. T. F. Pedley, resident health officer, were elected honorary members of the Association in recognition of their efforts for the promotion of classes in British Burmah. It was reported that several meetings for the presentation of certificates and inauguration of new centres had been held during the month, the most notable being at Wigan, when 523 certificates were presented by Lord Crawford, additional interest being attached from the fact that several of the recipients rendered very valuable assistance at the fatal accident caused by the fall of a railway bridge, at Coppull, a few days later. It was stated that St. Vincent had now to be added to the places in the West Indies where centres had been established by Lady Brassey.—At a meeting held at Erith on the 2nd inst., when certificates were presented to the police and other classes by Mrs. Clarkson Maynard, a presentation was made to the lecturer, Dr. Maynard, of a very handsome drawing-room clock, subscribed for by his pupils as a mark of their appreciation of his services to promote the success of the classes.

LOWER THAMES VALLEY DRAINAGE.—This apparently interminable business has entered on a new phase. On Tuesday Mr. J. T. Harrison, C.E., an inspector of the Local Government Board, opened an inquiry at Kingston-on-Thames with reference to an application by the Lower Thames Valley Main Sewerage Board for a provisional order to extend the time for carrying out the purposes for which the main sewerage district was founded, and to extend the period during which no proceedings should be taken against the Board for discharging the sewage of such district into the river Thames; and further to empower the Board to put in force the powers of the Lands Clauses Consolidation Acts with respect to the purchase and taking of lands otherwise than by agreement, with reference to certain lands at Mortlake required for the construction of sewerage works. On the 31st ult. a deputation from Kew and Mortlake waited upon Mr. Shaw Lefevre, M.P., to protest against the scheme of the Board to establish sewage manure works on the banks of the river immediately below Kew Bridge. It was suggested that a better site would be at the Soap Works, near Barnes Bridge. Mr. Lefevre promised that he would consider the statements of the deputation.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BASSETT, W. F. PRICHARD, M.B., C.M.Ed., M.R.C.S., has been appointed Resident Medical Officer to the Bathurst Hospital, New South Wales.

CLARK, CHARLES A. DAGNALL, M.B.Lond., L.R.C.P., M.R.C.S., has been appointed Honorary Physician to the Sydney Hospital.

CROOK, JOHN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Third District of the Norwich Union.

DILLON, JOHN T., M.D., M.Ch.Q.U.I., has been appointed Medical Officer to the Listowel Workhouse, vice Fitzmaurice, resigned.

FLOYER, BERNARD BLAISE, M.R.C.S., has been appointed Medical Officer to the Brewarrina Hospital, New South Wales.

FOWKE, FREDERICK WILLIAM, M.R.C.P.Ed., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fifth District of the Daventry Union.

GRIFFITHS, ERNEST E., M.R.C.S., L.R.C.P.Ed., L.S.A.Lond., has been appointed Government Medical Officer and Vaccinator for Blayney District, New South Wales.

KNIGHTS, Mr. J. W., has been reappointed Public Analyst for Cambridge and the Isle of Ely.

LITTLEJOHN, H. DUNCAN, M.D.Ed., L.R.C.S.Ed., has been appointed Consulting Surgeon to the Royal Dispensary, Edinburgh.

LOANE, JOSEPH, M.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer of Health for the Whitechapel District.

MORGAN, Mr. W., has been reappointed Public Analyst for the County of Cardigan.

RENNER, W., M.D.Brux., M.R.C.S., L.K.Q.C.P.I., L.M.I., and late Ophthalmic Surgeon to University College, London, has been appointed an Assistant Colonial Surgeon in the Colony of Sierra Leone.

STEVENSON, THOMAS, M.D.Lond., F.R.C.P., has been reappointed Public Analyst for the Borough of Godalming.

Births, Marriages, and Deaths.

BIRTHS.

BUSHE.—On the 1st ult., at Dilkusha, Lucknow, the wife of Surgeon Cecil J. L. Bushe, M.B., Army Medical Department, of a daughter.

FINLAY.—On the 2nd inst., at Montagu-street, W., the wife of David W. Finlay, M.D., of twin sons.

HARRIS.—On the 26th ult., at Prince Town, Dartmoor, the wife of F. W. H. Davis Harris, M.R.C.S., L.S.A.Lond., of a son.

TEEVAN.—On the 4th inst., at Sinclair-gardens, West Kensington-park, the wife of Alfred Teevan, M.R.C.S., L.R.C.P.Ed., of a daughter.

TREWMAN.—On the 28th ult., at Tregothnan, Southampton-road, Fareham, Hants, the wife of Surgeon Geo. T. Trewman, Army Medical Department, of a son.

MARRIAGES.

JEPHCOTT—HAINES.—On the 6th inst., at St. Nicholas', Alcester, Warwickshire, by the Rev. A. H. Williams, Rector, and Chaplain-in-Ordinary to the Queen, Robert William Jephcott, L.R.C.P.Ed., L.R.C.S.Ed., of The Laurels, Alcester, to Susan, eldest daughter of G. H. Heap Haines, of Alcester.

RIX—NEWTON.—On the 5th inst., at St. George's, Bickley, William K. Rix, M.R.C.S., L.R.C.P.Ed., & L.M., of Bradford, Yorkshire, second son of the late Thomas Rix, Esq., of Thrandeston, Suffolk, to Anne, elder daughter of Henry Newton, Esq., of Bickley, Kent.

DEATHS.

COFFIN.—On the 12th ult., at Aiken, South Carolina, U.S.A., Amory Coffin, M.D.

GLEN.—On the 31st ult., at Brook-street, Hanover-square, Joseph Glen, late Physician-General of the Bombay Presidency, in his 88th year.

HANBURY.—On the 26th ult., at Bombay, Fleet-Surgeon Ingham Hanbury.

PRINCE.—On the 5th inst., Charles Edward Prince, M.R.C.S., of Buckhurst-hill, Essex, and of Balaham, Cambridgeshire.

SMITH.—On the 2nd inst., at Belle Vue Lodge, Richmond, Surrey, James Smith, M.R.C.S., in his 91st year.

TRAVIS.—On the 4th inst., at his residence, High-street, Camden-town, after a long and painful illness, Henry Travis, M.D., aged 77.

THOMSON.—On the 29th ult., at Montrose House, Oldham, Alexander Thom Thomson, F.R.C.S., J.P., in his 64th year.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, Feb. 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Parker, "On Mammalian Descent."
MEDICAL SOCIETY OF LONDON.—Mr. Thomas Bryant, "On the Treatment of Irreducible Hernia, and an improved method of adapting a Truss in Hernia generally."—Mr. Jonathan Hutchinson, "On Lupus Disease of the Skin, with especial reference to certain rare forms of it."—In the Library before the meeting, Dr. Clement Godson will show a Nest for Infants requiring a uniform warm temperature.—Mr. Noble Smith, "On a Case of Congenital Tumour, supposed to be a Meningocele."

Tuesday, Feb. 12.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Geikie, "On Scenery of the British Isles."
THE PARKES MUSEUM OF HYGIENE.—5 P.M. Mr. J. P. Seddon, "On the Ventilation of Theatres."
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. John Henry Parker, "On Exhibition of Skulls and other remains from a Cemetery at Wheatley."—Dr. G. B. Barron, "On a Human Skull found near Southport."—Miss A. W. Buckland, "On Traces of Commerce in Prehistoric Times."—Mr. John T. Young, "On some Palæolithic Fishing Implements from the Stoke Newington and Clapton Gravels."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. W. H. Broadbent, "On Alcoholic Paralysis."—A Communication by the President from Dr. Straus, of Paris, Chief of the French Scientific Commission sent to Egypt to investigate the Cholera.—Dr. Straus' Microscopical Preparations will be on view at 8 P.M.

Wednesday, Feb. 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Parker, "On Mammalian Descent."
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Discussion of Surgeon-General Hunter's paper on "The Origin of the Cholera Epidemic of 1883 in Egypt."
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Annual Meeting.

Thursday, Feb. 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Pauer, "On Music for the Pianoforte," &c.

Friday, Feb. 15.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Parker, "On Mammalian Descent."
CHARING-CROSS HOSPITAL MEDICAL SOCIETY.—8 P.M. Mr. C. F. Clarke, "On Skin Diseases in Children."
ROYAL INSTITUTION.—3 P.M. Professor Thorpe, "On the Chemical Work of Wöhler."

Saturday, Feb. 16.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor Morley, "On Life and Literature under Charles I."

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Feb. 7th, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 1	29·44	W.	47	46	..	52	46	·20	Raining
,, 2	29·75	N.E.	41	40	..	42	40	·21	Raining
,, 3	30·42	W.	40	34	..	46	30	..	Raining
,, 4	30·44	W.	46	43	..	52	35	..	Bright
,, 5	30·45	W.	46	44	..	50	44	..	Hazy
,, 6	30·29	S.W.	44	42	..	48	42	..	Overcast
,, 7	30·16	S.W.	39	38	..	41	36	..	Overcast

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

A SUBSTITUTE FOR RENNET FERMENT.

THE Report of the Royal Gardens at Kew for 1331 contains abstracts of correspondence, in which it is pointed out that, in order to introduce a cheese-making industry in India, some vegetable substitute must be found for the ordinary animal rennet, since cheese made with the latter is unsaleable among the natives. In response to this, Surgeon-Major Aitchison brought to the notice of the authorities at Kew that the fruit of Withania coagulans, a shrub common in Afghanistan and Northern India, possesses the properties of coagulating milk; and experiments made by Mr. Sheridan Lea, M.A. Camb., have shown that an aqueous extract of the seed capsules of the above plant does somewhat rapidly coagulate milk. There appears to be no doubt that the substance which possesses the coagulating power is a ferment closely resembling animal rennet. A full report of this interesting paper may be read in the *Pharmaceutical Journal* for Feb. 2nd.

Prison Surgeon.—The Secretary of State for the Home Department.

Dr. Macnaughton Jones.—If possible, next week.

"EFFECTS OF SUDDEN CHANGES OF WEATHER UPON EPILEPTICS."

To the Editor of THE LANCET.

SIR,—Seeing Mr. Walter Tyrrell's letter in THE LANCET of Feb. 2nd on the above subject, I thought the following case might prove interesting.

M. W——, a girl aged fourteen years, was admitted into hospital on Dec. 5th, 1883, suffering from epilepsy. She was put upon large doses of bromides, with nitro-glycerine; her average number of fits (haut mal) were five in twenty-four hours. During the severe gales which were experienced here last week the following remarkable increase in the number of fits was noticed:—Jan. 27th, 9; 28th, 12; 29th, 19; 30th, 28; 31st, 19. Since Jan. 31st the patient has not been under my observation, as she went into the country, consequently I am unable to say if the number of fits has since decreased.

I am, Sir, yours faithfully,
LAWRENCE E. A. SALMON, M.R.C.S., &c.
South Devon and East Cornwall Hospital, Plymouth,
Feb. 4th, 1884.

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, Mr. Walter Tyrrell, there are in the convict prison here about twenty-one epileptics under constant supervision. Every fit, the average number per month being ten, is registered for the information of the medical officer. During the past three weeks not a single genuine attack has been notified, nor do the patients upon inquiry complain of having had any.

I am, Sir, yours faithfully,
Newport, Isle of Wight, Feb. 4th, 1884. ARTHUR PRICE.

GAS PURIFICATION BY LIMED COAL.

M. D.—The subject noticed in our last issue was comprised in a paper read by Professor Wanklyn at the Applied Chemistry Section of the Society of Arts on Jan. 24th, on the Manufacture of Gas from Limed Coal. This paper is published in the Journal of the Society for Feb. 1st. Professor Wanklyn has read two other papers on the same subject—one before the Chemical Section of the British Association at Southport on the 25th Sept. last, and the other before the Society of Chemical Industry at Burlington House on Nov. 5th. The method of purification advocated is Cooper's plan of liming coal as a preliminary to distillation in the gas retorts. The following quotation from the specification, which is dated December 2nd, 1882, will most readily serve to explain the process:—"This invention relates to improvements in the distillation of coal, and it consists in adding lime in the condition of hydrate of lime or of slacked lime thereto. To the coal, either in a lumpy condition (such as that in which coal is used in gas making) or by preference in a state of fine division, I add lime in the condition of hydrate of lime or of slacked lime, and I cause the mixture to be well incorporated. When I employ the mixture in gas retorts in gas works, I find it convenient to employ about half a hundredweight of quicklime to every ton of coal, and I slack the lime with about its own weight of water—i.e., five gallons, whereby it is brought into such condition as to be readily mixed with the coal. The small coal or 'slack,' which has comparatively little commercial value as coal, is especially available for the purposes of my invention." To the papers above mentioned we must refer our correspondent for further information.

Mr. Manta Chandroba (Bombay).—The possibility, nay the certainty in many cases, of flies being a medium of infection, especially in warm climates, has been repeatedly pointed out, though perhaps the fact is not sufficiently borne in mind.

VESICAL INJECTIONS IN CYSTITIS.

To the Editor of THE LANCET.

SIR,—I can fully endorse the remarks of Dr. Collins in your last issue on the value of vesical injections in chronic cystitis, having employed them in many cases of cystitis following stricture or enlarged prostate. The agent I have found most efficacious in allaying pain, lessening fetor of urine, and muco-purulent discharge, is a warm 1 per cent. solution of carbolic acid. The method of injection employed is older and simpler than that suggested by Dr. Collins, the only addition to the catheter being about a yard of rubber tubing and a funnel. With ordinary care this simple apparatus will fulfil the great requirement of any instrument for vesical injection—viz., the complete exclusion of air from the bladder.

The method of procedure is as follows:—1. The patient being in bed, the catheter is passed with tube and funnel attached, and the urine is run off into a bowl on the floor. 2. When the urine ceases to flow over the brim of the funnel, the latter is slowly raised till it is above the level of the patient, the carbolic solution being poured in. 3. The level of the fluid in the funnel is never allowed to sink below the apex, for in pouring the fluid into the empty tube it would be difficult to avoid the entrance of air. 4. When the patient feels a sensation of desiring to pass water, the funnel is lowered and the tube reconverted into a syphon. This is repeated till the solution is returned clear and colourless.

This method is free from any danger of overdistending the bladder (which might be urged against the use of any injection syringe), since the only force used is the weight of the column of water in the tube and funnel. I have only had the opportunity of trying this treatment in one case of acute uncomplicated cystitis. Here, however, the pain and tenesmus entirely disappeared after the first injection, and the character of the urine at once improved. In a few days the patient was quite well.

Since satisfactory results have also been obtained from iodoform injections, I trust I may be pardoned for reminding your readers of so simple and efficient a method of injection, the apparatus for the performance of which is readily obtainable by any practitioner.

I am, Sir, yours truly,
J. W. BATTERHAM, M.B., B.S. (Lond.),
House-Surgeon, Staffordshire and Wolverhampton
Feb. 2nd, 1884. General Hospital.

Mr. Friend.—We cannot undertake to supply reprints of the paragraph

M. G. B.—We do not recognise the apparatus by the name given.

Sanitas has not enclosed his card.

"DETERMINATION OF SEX."

To the Editor of THE LANCET.

SIR,—In my letter on the above subject, which appeared in THE LANCET of Jan. 5th, I took it for granted that in all the vertebrata at least the causation of sex was identical. I do not think that any gentleman with the advantage of a medical education will object to this assumption. Now, if this be so, the suggestion of Dr. Hamilton, in THE LANCET of Jan. 26th—viz., that the sex of the product of conception depends on the ovary in which the fertilised ovum is produced,—must fall to the ground. The domestic fowl has only one ovary, so, according to Dr. Hamilton, all the chicks should be hens! Query: Where do the cocks come from? I am, Sir, yours truly,

Bowmore, July 28th, 1884. JAMES ROSS, M.A., M.D.

THE BATTERSEA PROVIDENT DISPENSARY.

AT the Battersea Provident Dispensary last year there were 9674 members on the books, and 5086 cases of illness reported. The visits to patients' houses were 15,603, and the attendances by members at the dispensary 15,800. The employment of a collector was again found most useful. The sum divided amongst five medical men, exclusive of obstetric fees, was £721, or about £158 each. This allows less than one shilling per visit to the patient's house. The cost of drugs was £219 2*s.* 2*d.*, or less than sevenpence per patient, which is very reasonable.

A DISPUTED LIVE-BIRTH.

To the Editor of THE LANCET.

SIR,—One evening last month I was sent for to see a woman whom I had been engaged to attend in her third confinement. On reaching the house (about five miles off) I saw at once from the manner of the friends that something was wrong. On inquiry I found that the patient had experienced slight pains all day, but had not thought it necessary to send for me. However, about two hours before I could get to the house she had a sharp pain, and messengers were despatched for me and the nurse; the latter arrived in about half an hour. Meanwhile the patient had felt a desire to use the night-stool, and while doing so the child was born precipitately and the mother fainted. The child was heard distinctly to cry by the two women who were present, but they appear to have lost their heads or to have been too ignorant or frightened to take any steps until the arrival of the nurse, by which time the child was dead. The mother was placed in bed as soon as the umbilical cord had been tied and divided. I found on my arrival that it was necessary to remove the placenta, which was adherent. The patient made a good recovery. On directing my attention to the body of the child, which was supposed to have been dead about an hour and a half, I found no evidence of violence, and from all the circumstances I came to the conclusion that death was due to suffocation in the contents of the night-stool.

The above facts, which I think are in themselves exceptional, and may be of interest, are to my mind not less so than what followed on my communication with the coroner. Of course I could not certify still-birth or give an ordinary certificate of death, not having seen the child alive. I therefore wrote a full statement of facts to the coroner, not supposing that he would hold an inquest, but that he would instruct the registrar to enter it in the usual way.

The coroner (legal) wrote back to me that as the child had no separate existence from its mother it was not legally born alive, and that he could not hold an inquest, and accordingly I had to explain the case to the registrar. Of course, in this instance there was no suspicion of foul play, but it is not difficult to imagine cases in which such a decision might be attended with grave risk of miscarriage of justice. The difficulty seems to be as to what constitutes separate existence in a legal as distinguished from a medical sense.

I am, Sir, yours obediently,
Northampton, Jan. 1884. F. WYATT THURNAM, M.B.

Mr. Richards.—The question had better be addressed to the Editor of the *Pharmaceutical Journal.*

"THE CLERGY AS 'JUSTICES' IN CASES OF LUNACY."

To the Editor of THE LANCET.

SIR,—Your correspondent, Dr. Strahan, is quite right in the interpretation of the law, as far as he goes, but in that interpretation he does not go quite far enough. There can be no doubt that the 67th clause of the Act 16th and 17th Vic., with the interpretation contained in the 132nd section, empowers a chaplain of a workhouse, as such, to sign, conjointly with the relieving officer, an order for the admission of a lunatic to an asylum; but if Dr. Strahan will read the whole of the 67th section he will find that this provision is intended to take effect when the person deemed insane cannot, on account of his health or other cause, be conveniently taken before any justice. The intention of the Legislature, as originally set forth in the Lunacy Acts, was doubtless this: that in some parts of the country where the population was scattered, a justice of the peace might be difficult to get at, and an urgent case might suffer from the delay entailed in sending for one; and that only in such a case would a sufficient cause arise to empower the clergyman and relieving officer to perform the duty of ordering the case to be admitted to an asylum.

I am, Sir, yours very faithfully,
GEORGE THOMPSON, M.D.,
Feb. 1st, 1884. Medical Superintendent, Bristol Lunatic Asylum.

Mr. C. S. Grant (Dublin).—The communication appeared in our issue of Jan. 5th.

THE VACCINATION LAWS.

To the Editor of THE LANCET.

SIR,—Perhaps the following undesigned testimony to the value of vaccination laws may be more worthy of the attention of the Mayor of Dover and others of his way of thinking than that of medical men. I extract from Holtham's "Eight Years in Japan, 1873–1881" (p. 98), the following passage:—"We were very lucky not to have more of this trouble [small-pox] amongst us, for it was no uncommon thing to see children in a high state of eruption carried out of doors by their mothers as if nothing was the matter. Since 1875, however, great progress has been made in the way of vaccination, and the scourge, which has left its evidences in the enormous number of scarred and blind people met with throughout Japan, is now kept down within very small limits."

I am, Sir, yours, &c.,
January 24th, 1884. H. F. S.

L.R.C.P. Edin.—It is not unsatisfactory to see a master take an interest in his coachman, or even wish him to have the advice of his own doctor when illness is prolonged. But in such a case as the present the master should have asked that a consultation might be held between the coachman's own selected medical man and C. C should have suggested this.

CASTOR OIL AS A LUBRICANT IN CATHETERISATION.

To the Editor of THE LANCET.

SIR,—Suffering myself from prostatic hypertrophy in the stage wherein the use of the catheter is required, I was till quite recently unable to establish tolerance of the instrument. Even the limp caoutchouc catheter gave rise to irritation, which was followed by attacks of orchitis and a permanent state of mild catarrh of the bladder, the lubricants used being olive and almond oils, cold creams, and vaseline. Feeling dissatisfied with all of these smearing substances, I bethought me of trying castor oil, and from the very first application have derived therefrom signal advantage. Owing to its viscidity and tenacity, castor oil is carried upon the catheter down to the prostatic portion of the urethra and to the neck of the bladder, whereas other substances leave the extremity of the catheter long before those parts are reached, the instrument being thus deprived of smear just where it is most wanted. After ten days' use of the new lubricant, the testicles have become normal and the urine almost free from mucous deposit. At first I had some fear of acridity in the castor oil, but experience has shown that it is entirely free from irritating principle.

As regards the best means of promoting the removal of the last traces of opacity from the urine in such a case as the above, I should be much obliged to readers of THE LANCET for hints suggested by experience.

I am, Sir, yours obediently,
Paris, Jan. 22nd, 1884. J. B. MITCHELL, M.D.

Dr. O'Neill (Belfast).—The paper has not been received.

Mr. G. B. Sweeting.—Certainly not.

THE VICTORIA UNIVERSITY AND THE MEMBERSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editor of THE LANCET.

SIR,—What can be the reason that so many Manchester students are rejected at the final examination for the membership of the Royal College of Surgeons of England—sixteen out of twenty-nine in surgery, July, 1883, to January, 1884? Can it be that the present Manchester student is not equal in mental calibre to his predecessors of the school? This seems a contradiction in the face of the superior preliminary education now received by the average medical student. But I think that the authorities of the Victoria University have mistaken their mission, which should have been to create a Great Northern Medical University in opposition to the Scotch universities, so that Englishmen should not have to go to Scotland for a degree. As to trying to place themselves on a footing with the London University, they never can, as the Victoria University will never have the same prestige as London, and the examinations being equal, men will prefer the London degree.

I am, Sir, yours truly,
AN OLD STUDENT,
Manchester Royal School of Medicine,
Jan. 29th, 1884. M.D., M.R.C.S., &c.

E. E. P.—Youatt's is generally regarded as the standard work.

Dr. Braxton Hicks.—Next week.

"UNDER WHAT CIRCUMSTANCES CAN NURSES ENFORCE PAYMENT OF FEES?"

To the Editor of THE LANCET.

SIR,—The reply you have given to the above question in your journal of Feb. 2nd appears to me to be so unfair to the nurse that I hope you will allow me to draw attention to it, and especially as it might be used for future reference. A monthly nurse of good repute has her engagement list completely filled up seven or eight months in advance, and, consequently, she has many applications for her services which she cannot accept. I therefore agree with counsel's opinion that any judge would consider a monthly nurse entitled to her full fee if definitely engaged, though not employed; and I would go further, and say she would be entitled to board wages also, as the engagement includes maintenance for the time being.

I remain, Sir, your obedient servant,
Caterham, Feb. 5th, 1884. CONSTANT SUBSCRIBER.

"EARLY RISING."

To the Editor of THE LANCET.

SIR,—On the very day that I read your interesting annotation on early rising two friends of mine complained to me of the bad effects which sudden getting up at the moment of awaking has upon them. One, a young man, complains of giddiness and a slight feeling of faintness, often compelling him to lie down again. In the other case, that of a lady, there are similar symptoms of giddiness, but, in addition, there is a sensation of lassitude and weariness, often lasting the whole day. They are both in excellent health, have no signs of heart or lung disease, keep good hours, and live regular lives. In both cases resting in bed a few minutes after awaking prevents all these unpleasant symptoms. Is this possibly because the general system, having been in a quiescent state for so long, is not immediately able to adapt itself to the sudden requirements made upon it?—I am, Sir, yours, &c.,

Aberdovey, Feb. 4th, 1884. F. H. V. GROSHOLZ.

AN APPEAL.

To the Editor of THE LANCET.

SIR,—I desire to bring to notice a case of very great hardship, or rather, I might say, of real distress and want; and as the sufferer is a member of the honourable profession of medicine, I think the best possible way of making it known to his professional brethren will be through the medium of your widely read journal. The particulars of the case are as follows. Mr. Pink, of Eastmeon, near Petersfield, in the county of Hants, is now in the ninetieth year of his age, had practised as surgeon and general medical practitioner for nearly sixty years (forty-one years as parish doctor), when increasing infirmity made it necessary for him some ten years ago to retire from practice, and having at that time a small certain income, he was enabled to do so with some degree of comfort and with the prospect of enjoying the very modest savings which sixty years of hard work and very frugal living had certainly entitled him to. However, through unforeseen circumstances, he has now been deprived of every penny of his savings, and, at his great age, is turned out upon the world absolutely a pauper. Some few friends have considered that this is a case deserving help, and that immediately, and the Poor-law guardians for the Petersfield Union having been applied to to grant him a pension (which unfortunately they are unable to grant, owing to the fact of his having ceased to be their medical officer from the time he retired from practice), have very kindly subscribed privately a sum of £21, which has been placed in my hands as a nucleus of a fund to be raised for his permanent benefit. It is desired to raise a sum of not less than £100 in order that an annuity of at least £25 per annum may be secured for him. Surely this only needs to be known to his many well-to-do professional brethren to ensure its prompt realisation. Any sums, however small, will be very gladly received by your obedient servant,

B. J. FORDER.

Petersfield, Feb. 4th, 1884.

A Guy's Student.—All the effects of varicocele are removed by excision of the affected veins or by any other of the modes of radical cure. A man, after excision or cure of a varicocele, may be admitted into either of Her Majesty's services.

Morris.—We cannot express any opinion on the subject.

SCARLATINAL DESQUAMATIVE NEPHRITIS.

To the Editor of THE LANCET.

SIR,—This disease is frequently attended, as is well known, by dangerous convulsions. A writer to a medical paper recently advocated "bleeding" to the amount of several ounces. Now, although this may be successful, yet I cannot but regard it as heroic and as unnecessarily severe. The following is the course of treatment I have adopted for many years past, and as I find this treatment very successful, I am quite content to follow closely this line of practice. The following case, with its management, will indicate the method I pursue.

I was called recently to a little girl about seven years of age in severe convulsions. By a few questions, and by ocularly examining the urine, I discovered the child had recently suffered from a mild attack of scarlet fever. I ordered four leeches to be applied to the temples, two on each temple. In this case only two leeches bit, but these were thoroughly good ones. My directions are, after the leeches have fallen off, to apply one hot poultice, and then stop the bleeding. The medicine consisted of a good purge each day by powdered jalap and a mixture of solution of acetate of ammonia and tincture of steel. I ordered a hot bath each morning for several mornings in order to get good action of the skin. The child made a rapid and good recovery, and I should say the convulsions ceased immediately on the abstraction of blood by the leeches. The urine at first contained one-third albumen, and three days after nearly the normal quantity had been secreted, and only a trace of albumen could be detected.

I am, Sir, yours obediently,

Jan. 28th, 1884. WILLIAM V. LYLE, M.D.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir E. Lechmere, London; Professor Longmore, Netley; Mr. J. Brown, Burnley; Mr. Ethelstan, Balham; Mr. Baldwin Latham, London; Dr. W. G. Balfour, Byculla; Dr. Thompson, Bristol; Mr. L. Humphry, Cambridge; Mr. Batterham, Wolverhampton; Mr. Ellis, Gloucester; Dr. Loewe; Mr. Charley, Blakeney; Dr. R. Bell, Glasgow; Mr. Biggs, New Wandsworth; Dr. J. Ross, Bowmore; Herren Breitkoff Hartel, Leipzig; Dr. Mackie; Mr. Le Page; Mr. Doble, Madras; Mr. Moullin, Petersfield; Mr. G. Walpole, London; Mr. Wahltuch, Manchester; Messrs. Goupil and Co., London; Mr. T. D. Pryce, Nottingham; Dr. G. C. Purvis, London; Mr. Ihlee, London; Mr. West, London; Dr. Thomson, Oldham; Mr. Grosholz, Aberdovey; Mr. Gresswell, London; Mr. Sweeting, King's Lynn; Mr. Dodd, Newcastle-on-Tyne; Mr. Benham, London; Mr. Nicholson, Hull; Mr. W. M. Saunders, London; Mr. Salmon, Plymouth; Mr. A. Price, Newport; Mr. Oliver, Maidstone; Dr. Withington, Ampleforth; Mr. Mayne, East Ilsley; Dr. Macnaughton Jones, London; Mr. Paul, Devonshire; Mr. Shaw, Jersey; Mr. Ormsby, Longfield; Mr. Nuttall, Bury; Dr. Braxton Hicks, London; Dr. Williams, King's Lynn; Messrs. Smith and Son, Manchester; Mr. Noble Smith; Mr. A. Pick, London; Dr. Dixon Mann, Salford; Dr. Cockle, London; Mr. Forder, Petersfield; Dr. Newman, Glasgow; Mr. Rivington, London; Dr. Howell; Mr. Fraser, Salford; Surgeon-Major Godwin; Dr. Pavy, London; Dr. Stephen Mackenzie, London; Dr. Grant, Dublin; Mr. Neilson; Mr. Irving; Messrs. Stent and Sons, Guildford; Mr. Harrison, London; Mr. Woodland, London; Dr. Simpson, Aberdeen; Dr. Playfair, London; Mr. E. C. Owen, South Kensington; E. P. T., Maidstone; A Medical Practitioner; Morris; L.R.C.P. Ed.; A Guy's Student; M. G. B.; T. F. W.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Morris, London; Dr. Needham, Barnwood; Mr. A. Flint, Westgate-on-Sea; Mr. Beckett, Heeley; Mr. Whitford, London; Messrs. Maclehose and Son, Edinburgh; Dr. Wallis, New York; Mr. Drought; Mr. Nestle, London; Messrs. Gale and Co., London; Messrs. Isaacs and Co., London; Messrs. Dowie and Marshall, London; Mr. Rowlandson, Durham; Mr. Paine, Worthing; Dr. Veitch, Nelson; Messrs. Laird and Sons, Canterbury; Mr. Williams, Great Hadham; Mr. Appleton, Beverley; Mr. Armstrong, Manchester; The Hon. Mrs. Grosvenor; Messrs. Bullock and Reynolds, London; Messrs. Burroughs and Co., London; Mr. Salmon, London; Mr. May, Tunstall; Messrs. Baines and Son, Leeds; Mr. Brockelbank, Islington; Mr. Salt, London; Mr. Thomas, Norwich; Dr. Bringloe; Mr. Todd, Garlands; Mr. Fox, Bristol; Mr. Griffiths, Torquay; Messrs. Goddard and Massey, Nottingham; Mr. Hodgkins, Oxford; Dr. Fegan, Woolwich; Mr. Cole, Thetford; Messrs. Giles and Schacht, Clifton; Messrs. Moore and Co., London; Mr. Bonthron, London; Mr. Golder, Reading; Mr. Bartlett, Birmingham; Mr. Beaman, Newton-le-Willows; Messrs. Williams and Co., Swansea; Miss Beresford, Shrewsbury; Dr. Laen, Harding; Mr. Hosker, Bournemouth; Mr. Kemp, Castleport; Mr. Edwards, Alcester; Dr. Lowe, King's Lynn; Mr. Clarke, Doncaster; Mr. Knox, Glasgow; Dr. Barkley, Sheffield; Mr. Dougall, Glasgow; Mr. Norton, London; Mr. J. Ward, London; Messrs. Savory and Moore, London; Messrs. Deacon and Co., London; Messrs. Ledger, Smith, and Co., London; Mrs. Ponder, Eastbourne; Asclepiad; A. F., Bradford; M.D., Chelmsford; H. M. J.; M.R.C.S., Wolverhampton; D. E. F.; B., Northallerton; A., Brace-bridge; W. B., Higham Ferrers; E. B.; W. C.; M.D., Swansea; B. D. F.; Rex; The Secretary, Teignmouth Infirmary; Medicus, Liverpool; P. and D., Newcastle; L. M., Leeds; S. W. C., Hackney; B. J., Eastbourne; Medicus, Eccles Hall; A. S., Llanrwst; Medicus; A. B., Dalwich; &c. &c.

Hereford Times, Liverpool Weekly Courier, Bombay Gazette, Bangor Observer, East Morning News, Bath Herald, The Philanthropist, The Malthusian, &c., have been received.

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